

RESIDENT QUALITY OF LIFE AND ROUTINIZATION IN RURAL LONG TERM CARE
FACILITIES

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By

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ABSTRACT

Past research advocates the need for long-term care (LTC) facilities to adopt a person-centred model of care to optimize residents' quality of life. The construct of quality of life in LTC has been defined by satisfaction with a set of domains identified by Kane and colleagues (2003). One goal of this study was to determine which domain is the most predictive of overall well-being among LTC residents in a rural setting. Based on past research and on Deci and Ryan's (1985; 1991) self-determination theory, satisfaction with autonomy was predicted to emerge as most predictive of overall well-being. The present study also examined the relation between resident quality of life and well-being, and the degree of routinization (i.e., adherence to a rigid, inflexible daily schedule) within the LTC environment. Routinization is conceptually at odds with a person-centred model of care, yet its relation to the well-being of care recipients had not been examined prior. One hundred and ninety-eight residents from 15 LTC facilities in rural Saskatchewan participated in individual interviews to measure their satisfaction with 11 quality of life domains (Kane et al., 2003), and their overall well-being (using the Memorial University of Newfoundland Scale of Happiness; MUNSH; Kozma & Stones, 1980). One hundred and thirty-one staff from the 15 facilities completed a questionnaire designed to assess routinization within the LTC environment. Contrary to predictions, autonomy failed to emerge as a significant predictor of overall well-being among sample residents. The domain of meaningful activity received residents' lowest satisfaction rating of the 11 domains, and also accounted for the most unique variance in overall well-being. Routinization was negatively related to resident quality of life, with staff rating routinization higher in facilities which residents reported lower satisfaction with quality of life. Results provide focus for improving the quality of life of LTC residents, and point to areas for further study.

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1. INTRODUCTION

Healthcare planners are preparing for an impending surge in the elderly population. Part of this preparation includes moving long term care (LTC) services to the forefront of priority (Birren et al., 1991; Jacobzone et al., 1998; Jacobzone, 2000; Olshansky et al., 1993; Fries, 1992). Traditionally, LTC has operated within a medical model of care, similar to that of a hospital setting (O'Boyle, 1997, Kane, 2001). An alternative person-centred, biopsychosocial model has been suggested as more appropriate for LTC, and more conducive the quality of life for residents of LTC facilities (e.g., Birren & Deuchmann, 1991; Lawton, 1991; Sulmasy, 2002; Kane, 2003; Crecelius, 2003). The two models of care differ in terms of philosophy, conception of quality of life and how it is assessed, and characteristics of the social environment.

Literature on quality of life for LTC residents suggests that a number of psychosocial factors, such as autonomy and relationships, are important in contributing to and maintaining well-being among this population (Langer & Rodin, 1976, 1977; Spalding & Frank, 1985; Lawton, 1991; Faulkner, 2001; Kane et al., 2000; Nores, 1997; Kasser & Ryan, 1999). One goal of this study is to determine which factors are the most predictive of overall well-being among LTC residents in a rural setting. The social environment of LTC facilities is also understood to influence the quality of life of LTC residents (Kahana, 1982; Lawton, 1991; Morgan & Stewart, 1997; Kane & Kane, 2001; Kane et al., 2003). The reliance on routine, or the degree of *routinization* (Perrow, 1967) is one specific social-environmental factor relevant to LTC that is of particular interest in terms of its relation to resident quality of life. Routinization is conceptually at odds with a person-centred model of care, but its relation to the well-being of LTC recipients has not been examined empirically. The present study will investigate the relation of routinization to resident quality of life within rural LTC facilities.

1.1 Prospective LTC Needs

LTC encompasses informal care from friends and relatives, as well as formal care given by healthcare professionals, via home care, assisted living, and round-the-clock nursing care within LTC facilities. Formal LTC within nursing facilities will be the type of LTC referred to herein. The percentage of Canadians over the age of 65 living in LTC facilities is between 6.2% and 7.5% (Jacobzone, 2000). Circumstances including disease, disabling chronic conditions, mental illness, developmental disabilities, or injury can necessitate placement in LTC.

Admission to LTC is based on level of need or acuity. Prospective residents are assessed for level of acuity based on their limitations in completing activities of daily living (ADLs) which include toileting, feeding, dressing, bathing, and walking by oneself (Lawton, 1991). At present, admission criteria for placement in LTC is contingent on the prospective resident's heavy care needs and the relative high risk associated with their remaining residence in the community (Saskatchewan Health, 2005).

LTC facilities are home to residents of all ages, including those with chronic disabilities acquired in early or mid-adulthood. However, elderly persons over the age of 85 make up the majority of the population of LTC residents (Sahyoun et al., 2001). This portion of the population is often called the 'old-old' (vs. the 'young-old' aged 65-84), or the 'frail elderly', because they have the highest prevalence of disability, and are most likely to be in need of constant care (Birren et al., 1991; Fries, 1992; Jacobzone et al., 1998). Persons aged 85 and older are presently the fastest-growing segment of Canada's population. This trend is projected to continue until around the year 2010, after which time the Baby Boomers will replace the old-old as the fastest growing segment of the population (Birren et al., 1991; Organization for Economic Cooperation and Development, 1996; Jacobzone et al., 1998). The currently middle-aged Baby

Boom cohort was born in the post WWII era, between 1946 and 1964. As these baby boomers age during the next half century, the proportion of elderly persons will reach an unprecedented high (Fries, 1992). In 1992, 6.2% of the world's population was age 65 and over, and this percentage is predicted to increase to 20% by the year 2050 (Olshansky et al., 1993). It is predicted that the growth rate of the total population of persons age 65 and older within Canada to be 65.7% between the years 2000 and 2020 (Jacobzone, 2000).

The aging trend is also due in part to increases in life expectancy. Most recent statistics show that as of 2002, men could expect to live an additional 17.2 years past age 65, and women an additional 20.6 years on average (Statistics Canada, 2004). Due to rapid advances in medical technology, the average life span in developed countries is predicted to increase by approximately one year per decade until 2030, when limitations on human longevity are predicted to peak (Jacobzone, 2000). The combined impact of increasing life expectancy and the changing demographics of the elderly population is expected to present unique challenges and questions. It may serve future LTC policy development, for example, to ask “what are the possible consequences of longevity on how people will spend their elderly years?” Specifically, what proportion of their last years can people expect to spend in a disabled state, and what particular demands will be put on the nature and direction of healthcare for this population?

The trend toward longevity in the coming decades implies that people will spend a relatively longer time in ‘old-old’ age than in generations past. When this period of life is spent in a state of frailty and/or disability, it is referred to as the *liminal* stage (Brodgen, 2001), or as Fries (1992) refers to it, as the stage of morbidity (i.e., the time spent between the onset of chronic disease/disability and death). Fries (1992) outlines three possible epidemiological scenarios for how people will spend their old age the next half century.

In the first scenario, the average age of onset of chronic disease and mortality increases, but the average period of morbidity stays the same. In this case, the need for long term care would not decrease in volume due to the large numbers of aging baby boomers, but resident's average age upon admission to a LTC facility would be higher. If this prospective scenario actualizes, the same care demands, or level of acuity would remain. Residents would spend the same amount of time in the LTC facility, but their average age might be higher.

The second scenario is the Compression of Morbidity Hypothesis, in which the average age for onset of chronic diseases gets delayed because medical interventions and changes in lifestyles that contribute to health and result in a decreased period of morbidity (Fries, 1992). This hypothesis suggests the average person will spend most of their elderly years in good health. Under this scenario, the need for care provided by long term care facilities would be similar to the above scenario, but since the period of morbidity is shortened, residents would live in LTC for a shorter period of time. This hypothesis suggests that the priority of healthcare would be aimed at maintaining functionality among the large elderly population, through preventative and therapeutic initiatives. Institutionalized LTC would likely be reserved for the acute care of elderly residents during the short period between onset of disease and death (i.e., morbidity).

Considering the large population of baby boomers, it could be assumed that the need for LTC will become even more pronounced as this cohort ages throughout the first half of the century. However, since the need for LTC is contingent upon disability rates, a sharp increase in demand may not present itself in the immediate future. Instead, some analysts anticipate an actual decline in the disability prevalence among the elderly population to occur just prior to 2020 (Jacobzone, 1998). Within the next decade, the Baby Boomers will be moving into the

“young-old” age category. This cohort may experience a relatively healthy period of life prior to old-old age, due to medical advances and improved healthcare (Jacobzone et al., 1998).

Fries (1992) presents the Failure of Success Hypothesis as the most likely scenario. In this third scenario, medical interventions and healthier lifestyles will delay mortality and prevent the onset of fatal diseases, but will not thwart the onset of chronic debilitating diseases most associated with old age. Such diseases common to the elderly include diabetes, heart disease and stroke, dementia, and arthritis (Fries, 1992). Therefore, the period of morbidity will increase as people live longer. However, those “extra” years may be likely spent in a disabled state. In effect, while we are enjoying more health during our youth and middle aged years, we might be paying the price for the medical interventions that facilitated this health by spending a number of later years in a disabled state, and dependent on LTC.

As stated, men and women born today in Canada can expect to live to an average age of 82 and 85, respectively (Statistics Canada, 2004). However, the average life expectancy past age 65 free from even moderate disability (as of 1991) is only 8.3 for men and 9.2 for women (Jacobzone, 2000). Life expectancy is lower for men than for women, but the percentage of years of life free from disability is higher for men than for women (Jacobzone, 2000). Thus, the projected epidemiological disability trends support the Failure of Success hypothesis. Not surprisingly, disability in old age is correlated with lower quality of life (Lawton et al., 2000). Physical disability often accompanies illnesses associated with old age, such as stroke and diabetes. The prevalence of cognitive disability; dementia in particular, is expected to increase dramatically as the population ages. Comorbidity of cognitive and physical disability is related to lessened quality of life (Morgan & Stewart, 1997; Meeks & Depp, 2002).

The need for institutionalized LTC (versus informal care, home care or other assisted living arrangements) will depend on life expectancy, the general state of health among the elderly (i.e., disability rates), and cultural/societal trends guiding the availability of informal care (Jacobzone et al, 1998). According to the scenario described by the Failure of Success hypothesis, increased life expectancy will enable a large proportion of the elderly population to live into the 'old-old' stage, during which time demand for institutionalized LTC will be at a premium (Fries, 1992). Indeed, the growth rate of the institutionalized population is predicted to increase 2.7% per year until 2020 (Jacobzone et al., 1998). A Medicare study in the United States predicts that by 2020 12 million older Americans will need LTC, and that those over the age of 65 have a 40% chance of entering a nursing home, where 10% will stay for more than five years (*What is long-term care?* 2005).

If Fries (1992) is correct in the assumption that the Failure of Success hypothesis is accurate, the majority of LTC residents will have entered a stage of morbidity upon arrival to the LTC facility. In Saskatchewan and universally, levels of acuity have increased steadily in the past 5 years. The provision of complex care such as peritoneal dialysis and direct line intravenous feeding are even necessary at some facilities. The majority of residents within LTC facilities are frail elderly whose prospects of rehabilitation are very limited (Kane, 2001). In Saskatchewan, the proportion of LTC residents with rehabilitation potential is 10% (OANHSS, 2001). Despite this low level of rehabilitative potential, the acuity of many residents' condition is not generally so high as to require that survival and freedom from pain be the top care priorities (Kane & Kane, 2001). In response to a quickly aging population, it is suggested that a shift will need to be made from a focus on acute care interventions to provision of chronic long term care which maintains function and ensures maximum quality of life (Fries, 1992; Jacobzone, 2000).

Kane and Kane (2001) report that when surveyed, most community dwelling older adults say they do not want to live in a nursing home. Although this may be partly a reflection of negative stereotypes of aging and of the nature of LTC facilities (Norland, 1997), research suggests that residents of LTC facilities are at risk for a compromised quality of life (Lawton et al., 2000; Kane, 2001). Admission to a LTC facility often occurs in response to hospitalization for a life-threatening illness, or injury; events which can potentially exacerbate the trauma of adjustment to the new environment (Kane & Kane, 2001). Transitioning from independent living to residency in a long term care facility can result in a sense of lost independence, and thus, a reduced feeling of personal control and individuality (Welch & West, 1995). Clement and colleagues (1999: cited in Bouisson, 2002) report that elderly adults who live in LTC facilities experience higher rates of depression and anxiety than do independently living older adults. Meeks and Depp (2002) cite the risk for depression among this population as twice as great as for community dwelling elderly, with up to 58% of LTC residents affected by depressive symptoms.

Given the predicted continued demand for institutionalized LTC of some capacity, a shift needs to be made whereby life in LTC facilities is not automatically associated with low quality of life. Although it is important to address quality of life issues among the current LTC resident population, the importance of making quality of life a priority may become even more evident as the baby boom generation becomes dependent on formal LTC. This cohort has been described as demanding, opinionated and craving control, and LTC planners anticipate that baby boomers will have even higher expectations of LTC than does the present generation of LTC residents (Flaherty, 1998).

The degree to which LTC facilities meet the psychosocial and medical needs of its residents is a primary determinant of subsequent quality of life (Kane, 2001). The priority given to quality of life and the capacity to maximize it is contingent on the philosophy of care within LTC facilities. The predominant philosophy of LTC thus far is that of the medical model of care, which places priority on acute interventions with the ultimate goal of curing disease. The motto of healthcare system is to add years to life, yet it seems more ideal within LTC to make it a priority to add *life* to *years* (Lawton et al., 2000). Under the medical model, the agenda in LTC has been to provide the highest quality of life within the constraints of optimal health and safety outcomes. Kane (2003) proposes that this constraint be reversed, so that facilities are expected to provide safe environments and ensure positive health outcomes, as long as this is consistent with what the resident deems good quality of life. O'Boyle (1997) proposes that the focus of LTC should be directed such that quality of life is positioned as the "...dominant criterion by which medical decisions are made and treatment advances are judged" (p. 1872). The proposed alternative approach to care, more appropriate for LTC, is a "person-centred" model. This idealized model for LTC is distinguishable from a medical model in terms of its philosophy of care, its assessment of quality of life, and the nature of the environment in which care is provided.

1.2 Philosophy of Care

The medical model of care is based upon the paradigm of medical science which positions the patient as less of an individual and more as an object of investigation. It is sometimes argued that care under this model reduces the person to a compilation of cells, organs and systems, symbolically removing the "person" from the process of care (Sulmasy, 2002). According to the philosophy driving the medical model of care, the primary goal of healthcare is

to cure disease (Kane, 2003; Sulmasy, 2002). It is unquestionable that this model and philosophy have generated many medical advances which have improved and extended the lives of the elderly. What is questionable is whether it is appropriate to strictly adhere to the medical model of care within LTC settings.

In contrast to the medical model of care is the biopsychosocial model of care. In addition to a focus on the physical state, this model incorporates attention to the affective and psychological states of the individual, including the interpersonal relationships that surround the individual (Engel, 1977). The biopsychosocial model places the biological, the psychological and the social as distinct dimensions of a person, each interacting with each other in ways unique to the individual's circumstance, history, and culture. The goal of a biopsychosocial model of care is to treat the whole person, as an individual, and not simply as the host of a particular pathology. The model is thus, 'person-centred'. As stated by O'Boyle (1997), "This model reflects more faithfully the original World Health Organization (WHO)'s definition of health as a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity" (p. 1872).

Although a person-centred model for LTC is supported theoretically, the transition from a medical model has been slow to transpire (O'Boyle, 1997, Kane, 2001). Responding to recent plans to improve the standard of care and quality of life in LTC facilities, Ontario minister of Health and Long-Term Care George Smitherman declares "This is a *revolution* in long-term care in that we are putting the needs of the resident first" (Government of Ontario, 2004; emphasis added.) O'Boyle (1997) states that an approach slightly modified from the medical model has been adopted within LTC. The primary goal of this modified model is not to cure residents of their ailments and illnesses, but to maximize their functionality and independence (O'Boyle,

1997). This ‘functional’ model of care assumes that greater well-being for LTC residents is determined by their ability to independently carry out as many Activities of Daily Living (ADLs) as possible, including walking, toileting, eating, transferring, and dressing oneself. Although improved physical function is certainly an important contributing factor to well-being for LTC residents, research suggests that there are many other psychosocial factors that determine well-being for this population (Lawton, 1991; Kane, 2003; Crecelius, 2003).

1.3. Quality of Life

1.3.1. Defining and assessing quality of life. Quality of life is a construct that has received much research attention in the past 15 years, but remains difficult to define. In a meta-analysis (review of 75 articles) conducted on research using quality of life measures, in only 15% of the reviewed articles was the term quality of life defined (Gill & Feinstein, 1994). Broadly, the World Health Organization (WHO) has provided the following definition:

Quality of life is defined as the individual’s perception of their position in life in the context of culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by a person’s physical health, psychological state, level of independence and their relationships to salient features of their environment.

(WHOQoL Group, 1993)

Some believe, for moral reasons citing inherent human dignity for example (e.g., disability rights groups), that the ‘quality’ of someone’s life cannot, or should not be assessed or judged. This belief assumes that the notion of quality of life is equated exclusively with the moral worth of someone’s life. Jennings (1999) points out that quality of life can be otherwise conceptualized. Quality of life can be conceptualized as a goal of care, or as a concept of

assessment and evaluation, used as a benchmark to guide activity. Quality of life can also be understood as an ecological concept, referring to the nature and dynamics of people's interactions, rather than their internal properties (Jennings, 1999). The concept of quality of life in the present study is not oriented to the intrinsic value of the lives of individuals. Rather, the focus here is on quality of life as an instrumental goal of care and as an ecological concept in terms of the social environment in LTC settings.

The manner in which quality of life is defined and assessed in LTC is influenced by the particular model of care subscribed to within the LTC facility (Kane, 2001; O'Boyle, 1997, Crecelius, 2003). The present approach to care within many LTC facilities suggests that LTC remains fundamentally medically-oriented in its assessment of quality (Kane, 2003). Within a medical model, quality of *care* takes precedence over quality of *life*; a statement which evidences the difference between the medical and biopsychosocial models: the medical model is not person, or client-centred, but is outcome-oriented. Within the medical model, quality assessment is primarily confined to health-related indicators. Examples of outcome indicators of effective healthcare under the medical model are symptom relief, technical success, avoidable mortality, hospital readmission, pain, and cost effectiveness (O'Boyle, 1997).

In Canada and internationally, quality of care within LTC facilities is currently ascertained by the collection of resident data via a standardized computer data entry tool called MDS-Rugs (Minimum Data Set-Resource Utilization Groups). Nursing staff in LTC facilities in Canada are required to conduct quarterly MDS-Rugs assessments for each resident. Included in this assessment are 30 Quality Indicators (QI), which supposedly subsume the factors which comprise overall resident well-being within a facility. The large majority of these indicators include health-related factors such as number of falls, and prevalence of dehydration, or pressure

ulcers. The QIs are concerned with clinical syndromes and diseases associated with geriatric degeneration, the relative absence or presence of which denotes quality. Just two of these 30 variables are designated as “quality of life” indicators: “Prevalence of daily physical restraints (QI 26)” and “Prevalence of little or no activity (QI 27)”. The only other QI that assesses psychosocial well-being, albeit from a mostly clinical angle, is “Prevalence of symptoms of depression” (QI 4). The MDS-Rugs has been criticized for being too focused on the structure, processes, and outcomes of clinical matters (Crecelius, 2003; Kane, 2001). The Institute of Medicine's recent report on LTC notes as one of its nine general principles, that quality assessment in LTC should incorporate the measurement of quality of life (Institute of Medicine, 2001; cited in Crecelius, 2003). It is apparent that the predominant model of care in LTC in Canada equates a good quality of life with good quality of clinical care.

Although improvement and maintenance of physical function is certainly an important contributing factor to well-being for LTC residents, research suggests that there are many other psychosocial factors that determine quality of life for this population (Lawton, 1991 Kane 2003, Crecelius, 2003). According to Jennings (1999), psychosocial indicators are more relevant to the quality of life of LTC residents than are health-related indicators. In applying the concept of quality of life to LTC residents, Birren and Deutchmann (1991) suggest that it be regarded as a multidimensional construct that includes emotional, environmental, health, and social states. This view is aligned with the philosophy of the biopsychosocial model of care.

The evaluation of quality in a medical model is based on objective health-related factors which do not typically reflect the subjective appraisal of the recipient of care. Because the medical model assumes quality of life is considered to be primarily determined by functional and health status, assessment in LTC facilities is limited to objective data recorded by nursing staff.

The biopsychosocial model asserts instead that quality of life must be assessed on multiple levels including psychosocial well-being; a value that cannot be assessed without the patient's input. Since quality of life is inherently subjective, it is not a technical matter whereby a professional's expertise can override a resident's appraisal (Kane, 2003). Broadening outcome assessment to include subjective patient-based health outcomes is a more holistic approach which aligns with a person-centred model of care (O'Boyle, 1997).

Within research in the area, the typical method of quality of life assessment for both cognitively intact residents and those with dementia has been via a proxy (generally a care staff or family member) (Kane, 2003). Research on the reliability of proxy ratings of subjective quality of life have produced mixed results. Albert and colleagues (1996) found family members and paid caregivers to provide reliable and valid proxy assessments for cognitively impaired residents. Cohn and Sugar (1991) found greater reliability of reported quality of life between resident and Nurse Aides vs. resident and family members. Kane (2003) found correlations between resident and proxy ratings of quality of life to be generally unsatisfactory.

The most valid method of assessing a resident's quality of life is undoubtedly to ask the resident him or herself. This preferred method is certainly appropriate for samples of residents who are cognitively intact. However, a large proportion of LTC residents have cognitive impairment due to dementia, and their ability to report on their own quality of life is often questionable. Yet, there is some evidence to suggest that mild to moderately cognitively impaired individuals are capable of providing reliable self-reports of their depressive symptoms on the Geriatric Depression Scale (Yesavage et al., 1983), and of their health status on the Medical Outcomes Study SF-36 Health Survey (McHorney, 1996). Baum and Edward (2003) also found that many abilities remain intact in the early stages of dementia, including the ability

to make choices when given directions, follow directions, and express wishes. Kane and colleagues (2000) found that a substantial proportion of residents who were deemed as cognitively impaired were able to respond meaningfully to a relatively long interview about quality of life. Evidently, it may be presumptuous to assume that certain residents should be excluded from being asked about their quality of life based on their apparent cognitive status.

1.3.2. Quality of life domains. In 1998 Dr. Rosalie Kane and her colleagues were commissioned by the Canadian Centers for Medicare and Medicaid Services to develop quality of life measure that reflected psychosocial domains, or “elements of living”, in order to counterbalance the mostly health-related quality indicators from the MDS (Kane et al., 2003). They began investigating the primary areas that contribute to the quality of life of LTC, in a large-scale study called *Measurement, Indicators and Improvement of the Quality of Life in Nursing Homes*. As a first step in identifying the psychosocial factors most important to quality of life, a large number (N=1316) of residents of various cognitive abilities and over the age of 65 at 40 different LTC facilities in the United States were interviewed. Using this data, as well as literature reviews, expert opinions, focus groups, and discussions with stakeholders, 11 distinct but related psychosocial quality of life domains important LTC residents were identified, and are listed and described below in Table 1. A scale comprised of items relating to each of the 11 domains was then developed. Later analyses of the psychometric properties of this scale indicated that the items in the Individuality sub-scale were redundant with those from the Relationships sub-scale (Kane et al., 2003). The Individuality sub-scale was subsequently omitted, as the factor structure of the model only supported the remaining 10 domains (Kane et al., 2003).

Table 1: Quality of Life Domains (Kane et al., 2000)

Quality of Life Domain	Description
Comfort	Residents are relatively free from physical pain or discomfort, and perceive that pain and discomfort are noticed and addressed by staff
Functional Competence	The degree to which the physical environment of the LTC facility allows the resident to be optimally independent, physically and cognitively
Privacy	Residents have bodily privacy, can keep personal information confidential, can be alone if desired, and can converse with another resident in private if desired
Dignity	Residents perceive their dignity to be intact and respected, and do not feel devalued or humiliated.
Meaningful Activity	Residents have a sense that one's daily life includes interesting and meaningful tasks, and enjoy activities that are self-affirming
Relationships	Residents engage in meaningful social interchange with other residents, staff and/or family and friends who live outside the LTC facility
Autonomy	Residents have a sense of control over their own life and care
Food Enjoyment	Residents are satisfied with the variety and quality of food served at the facility
Spiritual Well-being	Residents' needs for religion, spirituality, meditation, prayer and moral values are met
Security	Residents have a sense of benign intentions in one's living environment, as well as a sense that help is readily available if needed.
Individuality	Residents have a sense of being known as a person; continuity with past identity

These domains are congruent with the philosophy of a biopsychosocial model of care, and with the quality of life correlates identified in previous research in this area. For example, Nores (1997) found that a sample of 120 LTC residents from six LTC facilities reported the following factors as most influential in terms of quality of life; being listened to and understood by staff, getting relief from pain and worry, receiving gentle and compassionate personal care, living in a pleasant and warm interpersonal environment, having sufficient activity, having a sense of autonomy, and being accepted as a person. Spalding and Frank (1985) report the following self-reported quality of life priorities of 455 residents from more than 100 nursing

homes; relationships with staff, variety of daily activities, choice of food menu, dignity, autonomy and individualized care plans. Meaningful activity was a major theme of the social environment identified in focus groups with families and caregivers of residents with dementia on Special Care Units (Morgan & Stewart, 1997) It has also been suggested that spiritual well being should be added as a priority to the biopsychosocial model of care. Sulmasy (2002) argues that it is particularly important aspect for LTC residents, and particularly those in a palliative (i.e., end-of-life) stages.

Research suggests that autonomy is a fundamentally important determinant of well-being, and perhaps particularly so for LTC residents. According to Self Determination Theory (SDT: Deci & Ryan, 1985, 1991), autonomy is one of three essential human psychological needs, the other two being competence and relatedness. SDT purports that environmental factors which block the actualization of these needs create ill health, conflict and distress for the individual.

Past research indicates that LTC residents are at risk for poor well-being when they perceive that they are not allowed to exercise their autonomy. Nearly 30 years ago, Langer and Rodin (1976) conducted an experiment in a LTC facility to study the effects of personal control on the well-being of residents on two separate floors of the facility. A speech was given to residents of each floor separately, at the outset of the study. Residents on one floor received encouragement to take responsibility for their own lives and daily choices at the facility. This was termed the “responsibility inducing” floor. Residents on a different floor received a lecture emphasizing the responsibility of the nursing staff for the residents’ daily lives and choices. This manipulation was reinforced by letting residents of the “responsibility-inducing” floor choose their own plant with the intention that they take care of it. The residents on the other floor were

instead given a plant not of their choice, and were told that the staff would take care of it. When residents from the two floors were compared on indicators of well-being months later, the residents on the “responsibility inducing” floor indicated higher levels of alertness and activity (Langer & Rodin, 1976). This was taken to suggest that empowering residents to take control of their daily lives and decisions (i.e., giving them more autonomy) contributes to higher levels of well-being (Langer & Rodin, 1976).

A year after the original study (Langer & Rodin, 1976), Rodin and Langer (1977) reported that inducing autonomy may also stave off death. They found that the mortality rate among the original group of empowered residents was significantly lower than that of the non-empowered group of residents. Kasser and Ryan (1999) also found that self-reported perceived autonomy was negatively correlated to mortality among nursing home residents after a 13-month follow-up.

Rodin and Langer (1977) also found that it was not health-related factors which predicted resident mortality, but nurse’s evaluations of the residents’ psychosocial well-being. Although social-environmental factors were not controlled for or measured in the previous studies (i.e., Langer & Rodin, 1976; Rodin & Langer, 1977), the degree to which relatedness, as well as autonomy contributed to resident psychosocial well-being was measured by Kasser and Ryan (1999). They found that perceived autonomy support from family, friends and LTC staff was associated with lower depression, increased well-being, and accounted for almost one-third of the variance in life satisfaction among residents (Kasser & Ryan, 1999).

Having positive relationships with staff has been reported by LTC residents as important to their well-being (Spalding & Frank, 1985; Nores, 1997; Kane et al., 2000). For many LTC residents, their primary source of social interaction is the facility care staff. Kasser and Ryan

(1999) report that residents felt most positively about their relationships with those staff who allow them control and freedom to regulate their day-to-day life. Typically, the interaction pattern observed in LTC facilities between nursing staff and residents is one that can be described as dependency-supportive (Baltes, 1996). Characteristic of this interaction pattern is the reward of social interaction given by staff to residents who display dependent, rather than independent behaviour. This type of dependency-supportive social environment disempowers the resident's capacity for autonomy, and describes a state termed by Seligman (1975) as Learned Helplessness.

Faulkner (2001) conducted a study to find out what specific hospital settings are characteristic of empowering versus disempowering interactions between elderly patients and nursing staff. Elderly patients in acute medicine and surgery wards, as well as patients on an elderly-care rehabilitation ward were administered a scale devised to measure patient empowerment based on the number and type of empowering interactions with staff. An example of an empowering interaction is staff providing the patient with relevant information about their illness. Results indicated that, compared to elderly patients on acute medicine and surgery wards, elderly patients on an elderly-care rehabilitation ward experienced a lower level of empowerment. Also, older patients were less likely to receive empowering care than younger patients (Faulkner, 2001).

Faulkner (2001) also found there to be a connection between the skill level of nursing staff and the level of autonomy granted to residents, whereby wards with lower proportions of qualified staff were found to deliver lower levels of empowering care. In Saskatchewan, 80% of resident care is provided by nurse's aides (vs. by Licensed Practical Nurses; LPNs or Registered Nurses; RNs) (OANHSS & the Ontario Long Term Care Association, 2001). Some nurse aides

have obtained training through Special/Continuing Care Aide courses. This training includes education on human development and the psychosocial needs of individual residents, among more clinically-related education in areas of nutrition, for example (SIAST, 2005). At present, nurse aides can be hired without such training in Saskatchewan, but are required to attain certification as a Special/Continuing Care Aide within two years of being hired (Thauberger et al., 2002). A portion of nurse aides currently working in LTC were hired prior to this requirement, however, and as of 2002, 25% of nurse aides in Saskatchewan facilities had no formal certification. The staff who provide the largest proportion of resident care in Saskatchewan are also the least formally educated. It is unknown whether this factor plays a role in the degree of autonomy granted to LTC residents in Saskatchewan facilities.

For LTC residents, it may be that autonomy is of equal, or even secondary in importance to having social interaction and relationships with the people around them. Baltes' (1986) model of learned dependency is derived from the model of learned helplessness (Seligman, 1975), but instead of positioning residents as passive acceptors of their disempowered state, it assumes that the elderly LTC resident actually exercises selective agency by relinquishing control over one domain of their life (functional competence, perhaps). By sacrificing autonomy in one domain, residents render themselves dependent on others to assist them in this area. In turn, the LTC resident secures the provision of another need, namely the social interaction that occurs between themselves and care staff during caregiving activities, such as bathing, toileting, and providing mobility (Baltes, 1996). The LTC resident who has sacrificed a degree of personal control can compensate for this loss by the creation of a situation where the satisfaction of the need for social interaction is guaranteed.

The model of learned dependency proposes that despite lost functionality and personal autonomy, well-being among LTC residents can be instead facilitated by staff-resident interaction (Baltes, 1996). A report on a Canadian study on LTC facility service levels indicates that residents in Saskatchewan LTC facilities receive an average of 3.06 hours of care per day (OANHSS & The Ontario Long Term Care Association, 2001). Experts recommend that residents should be receiving 4.55 hours of care from nursing staff daily, including administration and direct care (Harrington et al., 2000). While receiving adequate care and attention is definitely necessary for residents to achieve well-being, simply allotting extra time for care may not be enough ensure this. Carstensen's (1993) theory of socioemotional selectivity suggests that it is not the quantity but the quality of relationships or social interactions that contribute to quality of life. This may be especially applicable to the elderly, for whom values related to career and finance have become less of a priority. The theory posits that while younger persons seek a high number of relationships to facilitate needs such as mate selection and information sources, older persons might be more selective in their later relationships and value only those that satisfy their need for care, affection and depth (Carstensen, 1993).

The relative importance of one identified quality of life domain over all others is only speculative at this point, as no single study has investigated the relation of multiple factors to quality of life of residents in LTC. Kane (2003) suggests that many of the domains are interrelated, and that some will be more relevant to particular sub-groups of LTC residents than others. Autonomy, dignity, privacy and individuality are understood to be valued by most people. Although LTC should strive to satisfy these needs for all residents, these needs in particular may be more salient for those residents possessing the cognitive ability to perceive whether such needs are being met. Research on dementia care suggests that in addition to social-

environmental factors, physical-environmental factors such as a quiet, calm atmosphere are particularly important to the well-being of residents in LTC who suffer from especially later stages of dementia (Morgan et al., 2003). Also unknown is whether quality of life criteria differs among LTC residents of different ethnic or cultural backgrounds, and whether such criteria are dependent on the age of the resident, or type of disability the resident suffers from. It could be estimated that LTC residents who are familiar with a communal culture, such as the Mennonite culture, or some Asian cultures, may not prioritize autonomy or individuality as highly as LTC residents familiar with an urban, individualistic culture.

Understanding which of the domains are most related to quality of life for a specific population of LTC residents may be useful in targeting areas for improvement initiatives. As stated earlier, standardized quality of life assessments are not generally conducted on an ongoing basis in LTC. Kane (2001) reports that the response to concerns over quality of life in LTC facilities has typically been to increase staff numbers, and review standards of care. The Ontario government has proposed a new Long-Term Care Homes Act with the intention of improving the quality of life of residents, among other goals (Government of Ontario, 2004). The initiatives proposed to reach this goal include the hiring of more nursing staff, freezing accommodation fees for residents and unannounced annual inspections of nursing homes; none of which are resident-centred. Although these efforts contribute indirectly to the quality of life of residents, the psychosocial needs of LTC residents are not typically addressed head-on.

Supporters of a biopsychosocial model for LTC maintain that in order to improve the quality of life for LTC residents, it is not as important to measure and assess specific domains, as it is to direct focus at changing the culture, or environment of LTC (Kane, 2001). Initiatives such as the Pioneer Network in Long-Term Care (Fagan, Williams & Burger, 1997; Lustbader,

2001; cited in Kane, 2003) seek a transformation in the relationships and structure that prevail in nursing homes and affect both residents and staff. A relatively recent movement stemming from this initiative is the “Eden Alternative”, which represents a philosophy and approach to LTC where the goal is to address the “three plagues of nursing homes”: boredom, loneliness, and lack of meaning in the lives of LTC residents (Thomas, 1999). One of the ways these goals are theoretically achieved are by changing the physical environment of the LTC facility to a more home-like and residential (vs. institutional) setting by using more residential furniture and eliminating long hallways in favour of more communal living spaces. Residents of each of these living spaces are to be offered the opportunity to have a “say” in its décor, meals, and activity schedule. The social environment is also altered to reflect more of a “normal” existence, whereby institutional language (i.e., over-use of medical and hospital terminology) and staff uniforms are eradicated, as are strict department routines. The relation between the environment of LTC and quality of life is discussed further below.

1.4 Environment of Care

Environment can be understood as a space, an object, another person, or the collective behaviour of a group of people (Lawton, 1991). Much work has been done regarding the physical and social environment as it relates to the well-being of the elderly (Lawton, 1991). According to the environmental docility hypothesis, older persons are considered to be more sensitive to environmental pressures than are younger, or relatively healthy and able persons due to their vulnerability to physical and cognitive impairment (Lawton & Simpson, 1968). Those whose functional competence is relatively low are hypothesized to be particularly sensitive to environmental pressures (Lawton & Simpson, 1968). For example, hospital environments often contain simultaneous sensory stimuli such as intercom announcements and noise from ward

televisions or radios. This sort of sensory stimulation does not generally present a conceptual problem for the cognitively able, yet creates confusion and disorientation for some who suffer from dementia (Lawton et al., 2000).

The environmental docility hypothesis has been amended by later research which shows the environment offers potential opportunity for those who are competent to increase diversity in their ability to satisfy needs (Carp & Carp, 1984). In other words, the LTC environment needs to be flexible to facilitate independence and achievement for more physically and cognitively competent residents. Although LTC facilities are homes to an increasing proportion of frail elderly with fewer competencies, older adults who are relatively functional also inhabit this environment. With this understanding, LTC should seek to create an environment that demands neither too much nor too little of the person (Lawton, 1991).

According to Kahana (1982) and Lawton (1991), the goal of health care settings should be to create person-environment congruence, a condition that results in well-being. Congruence is achieved when a person's needs are facilitated by the environment. Incongruence leads to adaptive strategies to restore congruence, which, if unsuccessful, leads to impaired health and well-being. Moos's (1987) social-ecological approach is an application of the concept of person-environment congruence, whereupon the goal is to maximize congruence between individual preferences and environmental resources to attain better quality of life. This approach is based on the view that the social climate, rather than health or functional status, has the greatest impact on quality of life (Moos, 1987). To illustrate how person-environment congruence might be achieved in a LTC setting, imagine a resident whose is apathetic, or has low social competency. Instead of pressuring this resident on a daily basis to engage in group recreation activity, the environment can be manipulated such that the resident is seated where he or she can view the

activity and simultaneously be supervised. This example highlights a simple alternative to the reliance on group activities, a feature of LTC that has become typical despite its possible detriment to certain individuals who are not comfortable or interested in such recreation options (Kane, 2001).

Person-environment congruence theoretically ensures that the healthcare goals of security, safety and accessibility are achieved (Lawton, 1991; Kahana, 1982). The idea behind this theory is that the environment becomes more manageable and comfortable when the physical and social environments are matched to the individual's abilities (or disabilities) to the furthest extent possible. A LTC resident who uses a motorized wheelchair may require the environment to be relatively free of obstacles and clutter in order for him or her to attain the goal of accessibility. Cognitively impaired LTC residents may require the social environment to be calm and quiet in order to avoid a confusing and aggravating atmosphere, which can trigger aggression and consequent safety concerns (Morgan & Stewart, 1997).

Safety, security and accessibility are indeed also primary goals of the medical model, yet in practice, these goals are often attained at the price of patient autonomy. The characteristics of an environment operating within a medical model are those most noticeably evident in acute care settings. These include an emphasis on order, efficiency, routine, and cleanliness. The emphasis on these characteristics works directly against the opportunity for personal autonomy for LTC residents according to Lawton (1991) who states, "...the excessive standardization and sanitization of the medical model persists in hundreds of ways that are disaffirming to the aging resident's feelings of personal competence" (p 39). The risk of modeling the environment of LTC facilities after that of acute care is that, although it is imposed on the resident in the attempt to achieve therapeutic goals, it may not be satisfying to the resident.

Kayser-Jones' (1989) theory of the LTC environment includes three major contextual aspects that impact resident outcomes such as well-being, physical health, stability and morale: physical characteristics, social climate and psychological milieu. Of these, Kayser-Jones (1989) determined the psychological milieu to be the most crucial in determining quality of life for LTC residents. The psychological milieu refers to the prevailing norms, activities, and philosophy of the facility, the attitudes and beliefs of the nursing care staff and the personal interactions among all who work and reside in the facility (Kayser-Jones, 1989). As previously mentioned, the care staff certainly help create the social environment within the LTC facility.

A potential problem in staff-resident relationships can occur when the degree of control with which staff are endowed manifests in a manipulative or authoritarian way that undermines the autonomy and personal control of the residents (Stirling & Reid, 1992). In such cases, it is fair to assume that the care staff possess the majority of control within the care facility, in terms of decision-making and scheduling of daily events. It may also be fair then to assume that the reason for the prevalence of the type of dependency-oriented staff-resident interaction pattern described by Baltes (1996) is perpetuated because it favours the task-oriented working agenda mandated under a medical model of care. Perhaps residents who display dependent behaviour are rewarded (consciously or unconsciously) by staff because the care regimen of such residents are predictable, and under the complete control of staff. Instead of having to cater to the individual and therefore unpredictable needs of residents who exercise their independence, time can be saved by aligning all residents to one schedule of feeding, toileting and activities. As a result of its basis in the traditional medical model of care, LTC can be experienced as inflexible and sterile institutions, rather than homelike residences (Kane et al., 2003).

It can be argued that there is a theoretical incongruity between the ideal model of care in which LTC should operate (i.e., person-centred) and the prevailing model of care (i.e., a medical model, or a functional model, at best). According to Kahana's (1982) person-environment congruence model, either an undersupply or an oversupply of any environmental attribute can create incongruity, thereby reducing well-being of the persons within the environment. The next section will discuss how the oversupply of routine as an environmental attribute might be related to the well-being and satisfaction of residents and within the LTC environment.

1.5 Routinization in LTC

Kane and Kane (2001) argue that admission to a nursing home usually requires one to relinquish his/her preferred routine for the schedule of an institution modeled after a hospital. The medical model places efficient deployment of staff and routine processes for job performance and accountability ahead of individual preferences. This hardly describes a prescription for a 'resident-centred' care environment. LTC facilities often operate on an inflexible schedule with a 'cookie cutter' approach to care (Degenholtz, Kane & Kivnick, 1997). The inflexible adherence to a particular routine is referred to as routinization. Some examples of routinization in LTC are the practice of getting all residents up at the same time in the morning and insisting they retire at the same time every evening. A reliance on routines can also extend to the types of activities offered by recreational programs in LTC, whereby the same activity (e.g., Bingo) is held on the same day and time every week, or in terms of meals, whereby the same dish (e.g., meatloaf) is served for dinner on the same day every week (e.g., Mondays).

The reliance on such a strict routine is assumedly rationalized as necessary due to environmental stressors such as understaffing and the time constraints which staff are placed under to complete the care tasks. Langer and Piper (1987) and Kane (2003) propose that the care

routine adhered to in most LTC facilities focuses disproportionately on the basic elements of care, to the relative detriment of higher order quality of life needs. Morgan and Stewart (1997) note that staff caring for residents on dementia units of LTC facilities reported that they often had to rush care in order to complete caregiving activities by a certain time, which produced negative consequences for the well-being of the resident. This finding suggests that a reliance on routine may actually be somewhat counterproductive in terms of catering to the needs of residents. Kane (2001) suggests that part of the culture change called for in LTC includes putting people (i.e., residents) before tasks, and the breaking down of rigid routines in order to enable spontaneity characteristic of 'normal' life.

Although the relation of routinization to the well-being of LTC residents has not been previously researched, the nature of an inflexible schedule suggests that it may be detrimental particularly to the autonomy and individuality of LTC residents. However, there may be some elements of quality of life that routinization actually contributes to. Strict adherence to a particular routine implies predictability of events. It could be that a certain degree of predictability may serve a protective function during a vulnerable phase of life such as admittance to LTC facility. Reich and Zaustra (1991) found that preference for routine among older adults was often precipitated by an undesirable life event. Similarly, Bouisson (2002) found a preference for routine to be related to anxiety and depression among elderly, and suggests that such a preference is often a reaction to a stressful event, and an attempt to regain some emotional stability. Degenholtz and colleagues (1997) studied the values and preferences of elderly clients of community based LTC and found that the organization of daily routines was important to approximately half of the sample, but a greater proportion of clients deemed other values such as engaging in activities and privacy "very important". In particular, a predictable

schedule may serve to guarantee social interaction with care staff at regular intervals, which, as theorized in Baltes and Baltes' (1986) model of learned dependency, helps facilitate the well-being of disabled elders in lieu of lost functionality and autonomy.

Although preference for behavioural and environmental stability have been shown to become increasingly pronounced with age, this preference is not associated with improved well-being (Reich & Zaustra, 1991). Bouisson (2002) cautions, in fact, that high levels of desire for routine among older persons may be cues to their vulnerability and poor psychological health. It remains unknown under whether or not, and under what conditions, routinization is a handicap or a resource for elderly persons, and specifically for LTC residents. Research on preference for routine among elderly people implies that its benefits are contingent on whether or not the resident (versus the staff or LTC facility) has control over the routine.

Adherence to a routine is intuitively considered as a way to ease the cognitive and physical burden of having to complete many tasks simultaneously. However, routinization may be detrimental not only to the satisfaction of LTC residents, but to LTC staff as well. Routinization is a term originally coined by Perrow (1967) to describe the degree to which a job is repetitive. The Price-Meuller model of job satisfaction (Price & Mueller, 1981) includes 11 exogenous variables that are predicted to influence job satisfaction. Among these 11 variables is routinization, which the model proposes to be negatively related to job satisfaction (Price & Mueller, 1981).

Chu and colleagues (2003) tested the Price-Meuller model of job satisfaction with hospital nurses in Taiwan. Factors that predicted job satisfaction among acute care nurses included positive affectivity and job involvement. Those nurses who felt more enthusiastic about their job, and who were more willing to exert effort on the job were more likely to report

satisfaction with their job (Chu et al., 2003). Conversely, the same study found that routinization had the greatest negative impact on job satisfaction. Routinization was assessed in this study by the nurse's perception of how repetitive their job was. Most of the nurses in this study were young and had worked at their current hospital for less than five years. The authors estimate that the young age of the sample may have had an impact on the finding that routinization was so negatively related to job satisfaction, as the majority of the sample may have been seeking more excitement in their careers.

Perrow (1967, 1970) explains how the degree to which a work setting is highly analyzable versus highly variable impacts the degree to which a particular job is susceptible to routinization. Highly variable healthcare settings such as an Intensive Care Unit are by nature unpredictable, and therefore not reliant on a strict routine. Highly analyzable healthcare settings are those where problems that appear are well-analyzed and where there are standardized methods of dealing with them (Perrow, 1967). These settings are characteristically more reliant on routines. From a work perspective, LTC facilities could be characterized as more analyzable since the environment is oriented to the activities of daily life, instead of to the response to medical crises. LTC facilities are particularly susceptible to routinization due to the fact that the activities of daily life generally contain limited variation, and because the daily care schedule is often unchanging and inflexible.

Langer's (1989) concept of mindlessness (and the related concept of mindfulness) may help to explain why routinization is detrimental to job satisfaction. Mindlessness describes a state in which the subject is not fully engaged in the activity he or she is performing. When operating in a mindless state, one is relying on distinctions and categories drawn from past experiences only. Conversely, mindfulness describes a state of having greater awareness of the unique

circumstances of any particular instance or event (Langer, 1989). Mindfulness is an ideal cognitive state because the consequences of being fully engaged in the moment include being more sensitive to the environment, more open to novel information, and better awareness of multiple perspectives toward problem solving (Langer & Moldoveanu, 2000). Operating in a state of mindfulness is conducive to individualized, or person-centred care, because caregivers are thereby attuned to the unique circumstances of the individual for whom they are caring.

Langer (1989) proposes that mindlessness is likely to accompany behaviour that is governed primarily by rules and routines, without conscious regard for the particulars of current circumstances. When tasks are repeated in the same order each day, as they often are in the care schedule of a LTC facility, the experience of completing the task becomes routinized. The cognitive capacity to complete a well-practiced and predictable set of tasks requires a low level of cognitive involvement, which characterizes a state of mindlessness. Langer (1989) claims that one of the reasons operating in a state of mindlessness is dissatisfying is because it is intellectually un-stimulating. It seems that mindlessness perhaps perpetuates a reliance on routine, which in turn sustains a state of mindlessness. In other words, mindlessness may be reciprocally related to repetitive task completion, and thus to routinization.

Mindlessness has also been proposed as related to a lack of perceived control over a situation (Langer, 1989). Lack of employee autonomy may also partly explain why routinized work environments are dissatisfying (Langer, 1989). Kane (2003) reports that there is a pervasive sense among LTC staff that they are powerless to influence the quality of the lives of the residents they care for. Kane (2003) argues that a disproportionate emphasis on the health and safety of LTC residents creates low expectations about the capacity to cater to their psychosocial needs. It may likewise be that a disproportionate concern among staff for adhering

to a routine creates an environment where this concern supersedes the importance of individualized resident care.

A theoretical link can be made between caregivers' perception of their impact on the lives of the residents they care for, and the reported happiness of those residents. According to Kayser-Jones (1989) the attitudes and beliefs of the care staff, as well as existing norms and values are part of the psychological milieu of the LTC environment which theoretically impacts the well-being of residents. LTC staff who believe that their role is meaningful assumedly contribute positively to this psychological milieu. The goal of this research is to study the relation of routinization to the dynamic of staff and resident perceptions, and more specifically to resident quality of life as an outcome of the LTC environment. The present research is unique in that LTC residents themselves will be the source of data about their own quality of life and happiness, instead of the more typical method of assessing resident quality of life from a proxy perspective. The study will examine the perceptions of a sample of LTC staff members regarding the routinization of their workplace, and the impact they perceive to have on the quality of life of residents. Thus, the overall research objective in this study is to test for a relation between perceptions of impact and routinization among the staff sample and the self-reported quality of life and well-being among a resident sample. No such research has been conducted to date, whereby the LTC environment is examined in part from the perspective of the residents themselves. The present research was conducted in a rural population, and therefore serves to supplement the small literature base focusing on healthcare in rural areas.

2. HYPOTHESES

2.1 Resident Quality of Life Hypotheses

Figure 1 contains a conceptual diagram of expected results.

2.1.1. Predictors of overall well-being.

1. Of the 11 quality of life domains, Autonomy will account for the most unique variance in overall subjective resident well-being.

The first objective of this study is to determine which quality of life domains identified as important to LTC residents by Kane and colleagues (2003) are most related to overall well being among residents living in rural Canadian LTC settings, using the Memorial University of Newfoundland Scale of Happiness (MUNSH; Kozma & Stones, 1980) as comparative criterion. The answer to this question has practical relevance, as knowing which concrete domains are most predictive of well-being among residents may help policy makers and care staff to address and amend deficiencies more so than attempting to address the concept of ‘quality of life’ in its abstract entirety. As discussed previously, much research regarding the quality of life of the elderly has focused on the importance of maintaining personal autonomy in old age. According to self-determination theory, autonomy is one of three basic human psychological needs (Deci & Ryan, 1985; 1991). Lawton (1991) contends that the well-being of LTC residents is eroded in environments that infringe upon their autonomy. Research by Langer and Rodin (1976; Rodin & Langer, 1977) suggests that giving LTC residents a sense of personal control over their lives can have important positive physical and psychosocial health outcomes. Based on the emphasis on autonomy in past research, it is predicted that of the 11 domains measured by the quality of life survey, Autonomy will account for the most unique variance in overall subjective well-being.

2. The quality of life domains Relationships and Staff-Resident Interaction will account for unique variance in overall subjective well-being.

In addition to Autonomy, a person-centred model of care emphasizes the importance of social interaction and support to the well-being of elderly LTC residents. When asked what factors contribute to their quality of life, LTC residents report that meaningful relationships with friendly staff are important (Kane et al., 2003). The model of learned dependency suggests that LTC residents can maintain well-being by compensating for functional losses with the development of meaningful relationships with the staff members upon who they depend for assistance on a daily basis (Baltes & Baltes, 1986). Thus, it is hypothesized that the domains of Relationships and Staff-Resident Interaction will account for unique variance in overall subjective well-being among LTC residents.

2.1.2 Subjective Well-Being and Other Quality of Life Domains

The relative relation of the eight remaining quality of life domains identified by Kane and colleagues (2003) to overall well-being has not been examined. The relation of each of these domains to overall subjective well-being among LTC residents will be examined in an exploratory fashion.

2.2 Routinization Hypotheses

2.2.1 Routinization and resident quality of life, subjective well-being

3. Routinization of the LTC social environment will be negatively related to resident quality of life and subjective well-being.

Routinization is a component of the social environment and psychological milieu of LTC facilities, and is characterized by a rigid reliance on routine. It has been suggested that a routinized environment forces those who must abide by that routine to sacrifice personal choice,

or autonomy. This implies that routinization is detrimental to person-environment congruence in LTC facilities, in part because it may diminish residents' autonomy, and therefore the overall quality of life and well-being. Data from two different samples (the resident sample and the staff sample) will be used to test this hypothesis. It is predicted that perceived routinization among staff within the LTC facilities will be negatively related to the subjective quality of life and well-being (MUNSH) among the residents at those facilities.

4. Routinization of the social environment in LTC facilities will be negatively related to Autonomy among LTC residents.

This hypothesis examines the question of whether a differential relation exists between routinization and particular quality of life domains. As stated, routinization is demonstrated in a social environment whereby all members of the environment are subject to the same inflexible schedule of daily activity. It is hypothesized that the more routinized an environment is, the less opportunity exists for individuals to exert personal control over the events of their daily life (Lawton, 1991). Based on research which describes the conditions under which the autonomy of LTC residents can be at risk, it is predicted that higher levels of routinization will be related to lower reported satisfaction in the domain of autonomy.

5. Routinization of the social environment in LTC facilities will be positively related to the quality of life domains, Relationships and Staff-Resident Interaction.

Although it is predicted that routinization will be negatively related to overall quality of life and well-being, the relation between routinization and the specific quality of life domains other than Autonomy have not been examined empirically or theoretically. Thus, this hypothesis is largely exploratory. Baltes and Baltes (1986) model of learned dependency suggests that LTC residents may compensate for the loss of autonomy in some areas by reaping the benefits of

social interaction with staff whom they have become selectively dependent upon. A strict reliance on routine (i.e., routinization) may ensure a predictable and guaranteed schedule of care, thereby facilitating the satisfaction of the resident's need for social interaction. The present study will explore this assumption, and its following prediction that satisfaction with the domains of Relationships and Staff-resident Interaction will be positively related to routinization.

2.2.2 Routinization and Mindlessness

6. Perceived routinization in the LTC environment will be related to reported experience of mindlessness among LTC staff.

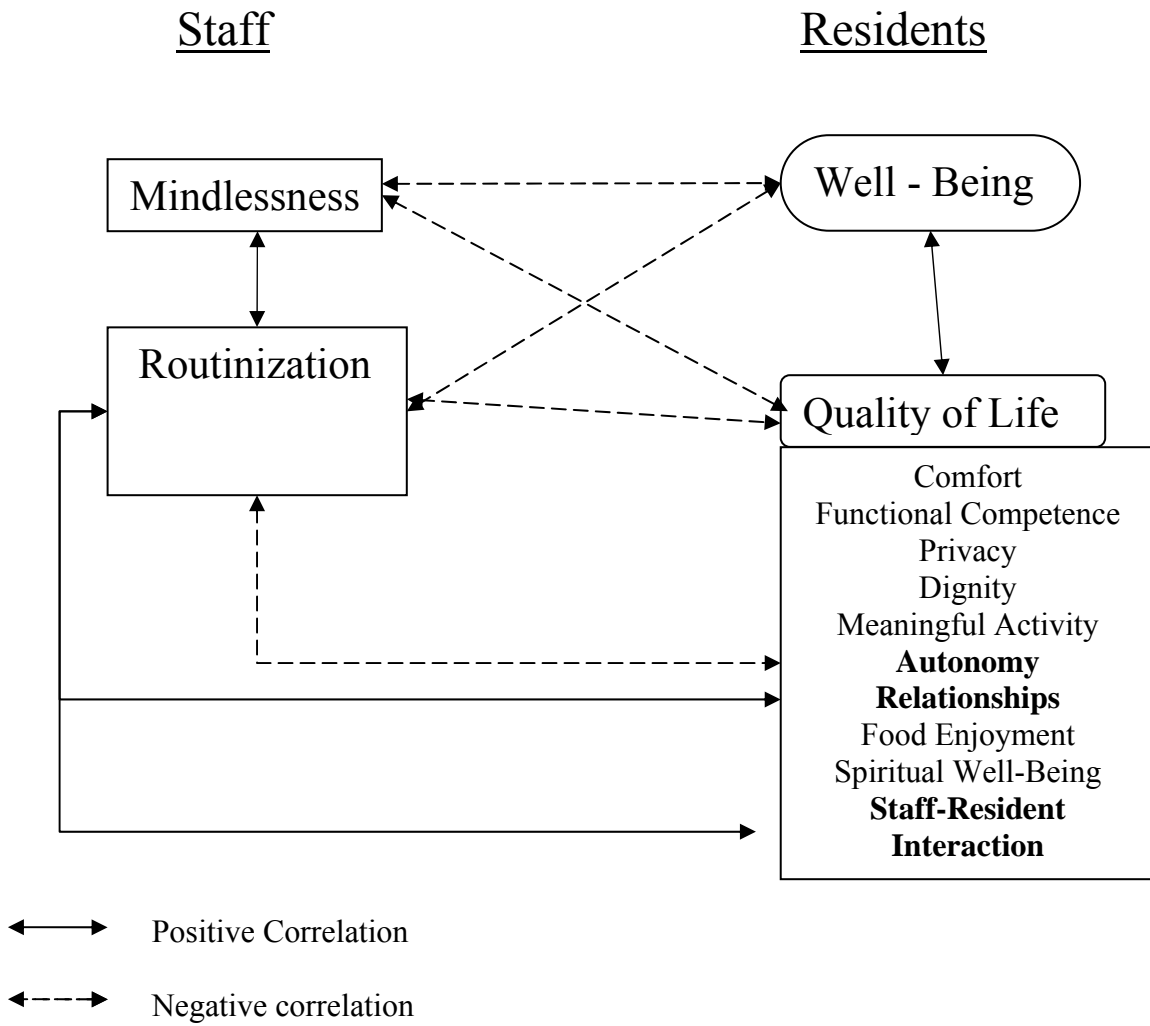
The second major area of research interest in the present study is the relation between routinization, the experience of mindlessness, and work related factors according to LTC staff. Langer's (1989) concept of mindlessness describes a subjective personal experience that is theoretically related to a routinized environment. According to Langer (1989), mindlessness is the absence of active engagement in the activity one is performing. Mindlessness is likely to occur during activity that is repetitive, or well-rehearsed; situations which are routinized (Langer, 1989). Staff working in LTC facilities that emphasize a strict adherence to routine may also more often experience mindlessness. As an example of how mindlessness might be manifested among LTC staff, those who perform the same tasks in the same order at the same time each day might be more likely to report completing caregiving tasks only to later realize during nursing report that they can't remember which resident was the recipient of that care. It is predicted that staff who report greater frequency of experiencing episodes of mindlessness at work will also report a higher level of routinization within the LTC environment in which they work.

2.2.3 Routinization and Other Staff-Related Factors

7. LTC staff who perceive higher levels of routinization at their workplace will be less likely to perceive that their work has a positive impact on residents' quality of life.

Past research has shown routinization to be negatively related to job satisfaction among nursing staff (Chu et al., 2003). In the same study, two other work characteristics, 'job involvement' and 'positive affectivity' were positively related and significant predictors of job satisfaction (Chu et al., 2003). Kane (2003) reports a pervasive feeling of helplessness among LTC nursing staff to make a positive impact on the lives of residents in their care, creating a sense of lowered expectations among staff, for themselves and for residents. It is predicted therefore, that routinization will be negatively related to staff's perceived positive impact on the quality of life of residents.

Figure 1. Conceptual Diagram of Expected Results



3. METHOD

3.1 Sample

One hundred and ninety-eight residents and 131 staff members from 15 LTC facilities within a rural Midwestern Saskatchewan Health Region participated in the study. Each of the facilities, with the exception of two, is located in a distinct town or village within the 41,770 square kilometre parameter of the Health Region. The population of the towns range from 361 to 4,825 (Saskatchewan Health Covered Population, 2005). Statistics Canada defines a territory as rural if the population is less than 1,000 and the population density is less than or equal to 400 persons per square kilometre. Although some of the sites within the present sample are within towns with populations greater than 1,000, the total population density of the entire region served by these 15 facilities is only 1.1 persons per square kilometre (Statistics Canada, 2006). Therefore, the overall sample is considered rural for the purpose of this study.

The total number of LTC beds in the Health Region was 507 at the time of sampling. The number of residents living in each of the 15 facilities ranged from 17 to 76 during the data collection period. For the purposes of this study, the facilities were categorized by a tertile split into small, medium and large size (i.e., resident capacity). Of the 15 facilities, five were considered small (17 – 22 residents per facility), six were considered medium (29-35 residents per facility) and four were considered large (42-76 residents per facility) sized facilities. Table 2 contains the range of resident capacities within each facility size category, the number of residents who participated in the surveys within each facility size category, and the proportion of the total resident population represented by participants in each category. Four of the LTC units in the sample are located within the same facility as a hospital, and eight are integrated within health care centres.

Table 2. *Facility Size Category Descriptives*

	Range of Resident Capacity	Range of Sample N	Percent of Population Sampled
Small (5 Facilities)	17-22 (N = 86)	6-10 (N = 42)	21.2
Medium (6 Facilities)	29-35 (N = 191)	8-19 (N = 73)	38
Large (4 Facilities)	42-76 (N = 227)	15-25 (N = 82)	40.9

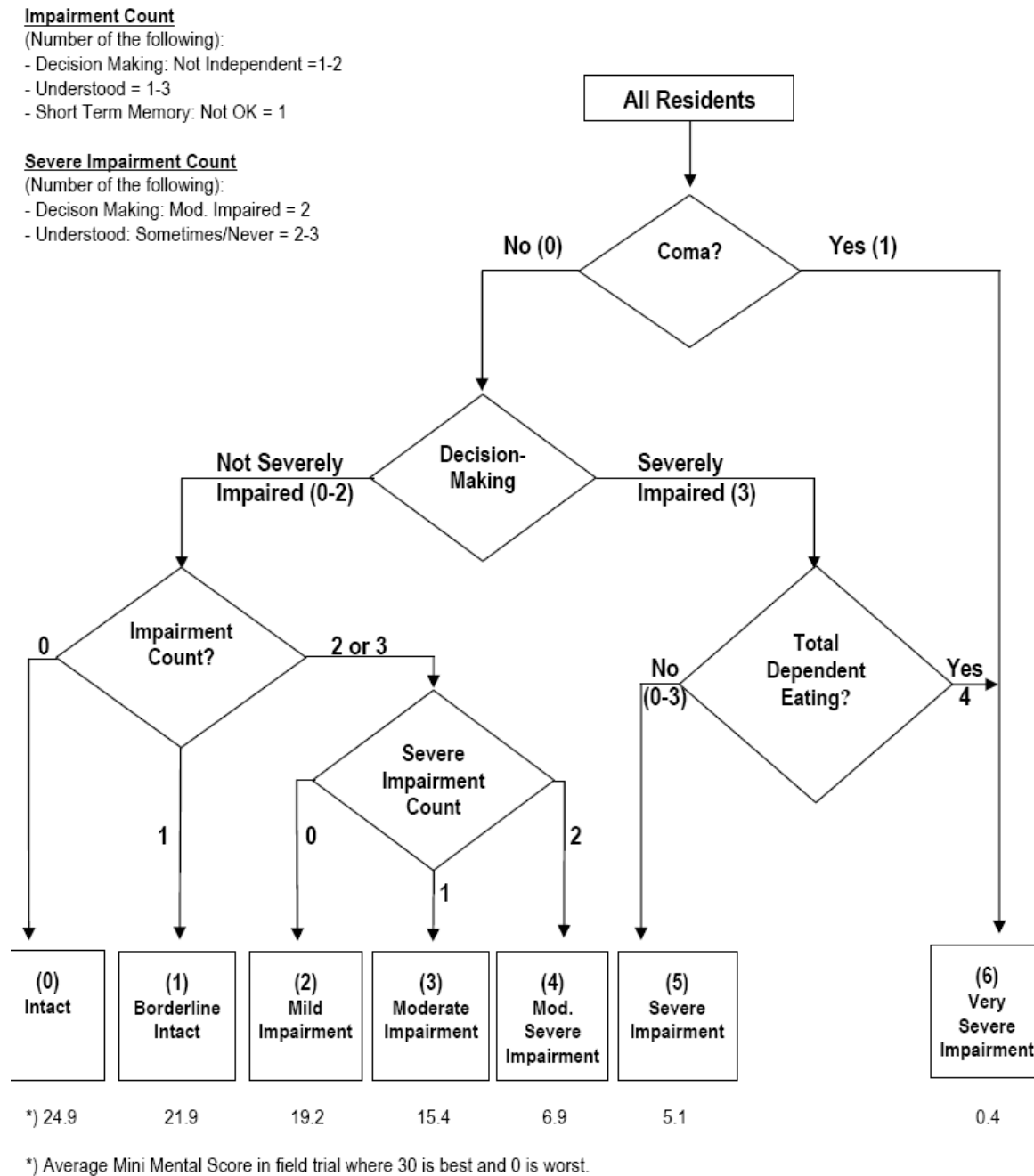
3.1.1 Resident sample. To be eligible for inclusion in the sampling frame, participants must have resided at their facility for more than 30 days, as indicated by the existence of an MDS initial assessment for that facility. This criterion was instituted in the attempt to maximize the validity of resident judgements about their environment, and to avoid the either positive or negative bias LTC residents may have toward their new home during very early stages of residency. In order to create a sampling frame of resident participants who were likely to be able to meaningfully consent to be interviewed, and to understand the questions, resident scores on the Cognitive Performance Scale (CPS) were used as an indication of cognitive ability (Morris et al, 1994). The CPS score is based on the resident's scores on four items measuring short-term memory (B2a), cognitive decision-making (B4), making self understood (C4), and dependent eating (G1h-A). Scores on the CPS range from 0 (indicating no cognitive impairment) to 6 (indicating severe cognitive impairment). The internal consistency of the CPS is reportedly good ($\alpha = .80$), and its validity moderate, correlated .65 with the Mini Mental Status Exam and .63 with the Psychogeriatric Dependency Rating Scale (Gruber-Baldini et al, 2000).

The CPS is assessed on a quarterly basis for each resident as part of the MDS assessment protocol. Since MDS assessments are done on a quarterly basis for all residents, the accessed CPS scores had been updated no more than three months prior to sampling. In Kane and colleagues' (2003) scale development study, resident cognitive ability was determined by a modified version of summative cognitive function score (Lawton et al., 1998), whereby residents

scored between 0 (indicating no impairment) and 5 (indicating severe impairment). This scale is reportedly correlated .93 with the CPS (Kane et al., 2003).

Kane and colleagues (2003) attempted to administer the quality of life measure by individual interview to residents of all cognitive scores. Results were analyzed separately for the sub-sample of residents within the 0-2 (none to little cognitive impairment) cognitive range, and for those scoring 3-5. In the present study, only residents with CPS scores between 0 and 3 (indicating none to moderate cognitive impairment) were included in the original sampling frame. A CRS score of 3 (indicating moderate cognitive impairment) was employed as the cut-off for inclusion in the present investigation, as past research has indicated that the primary interview schedule used in this evaluation is appropriate for those with mild to moderate dementia (Kane, 2003). A diagram depicting the CPS scoring process is found below in Figure 2.

Figure 2. CPS – Scoring Rules (Morris et al., 1994)



Each facility manager was asked to generate a list of the residents in their facility who met the above listed eligibility criteria. In order to comply with Section 29 of the Health Information Privacy Act (HIPA; Saskatchewan Health, 2003) regarding the use and disclosure of personal health information for research, the researcher was not granted access to the information

on these lists. Because the names of residents are considered personal health information, the researcher was prevented from directly asking the listed residents to participate. Instead, one designated staff member from each facility approached each resident on the list to ask for initial consent to have their name forwarded to the researcher for consideration to be interviewed. The staff member used a standardized “initial consent” form for each resident. The researcher was only given the names of those residents who verbally consented to be approached for an interview. The researcher did not have access to, or knowledge of, the actual MDS listings of individual resident’s CPS scores, or any other resident health related information.

Two hundred fifty-eight residents who both met sampling criteria and agreed to the initial request for consent comprised the final sampling frame (51% of the LTC population in the sample Health Region). Of this original sampling frame, 25 (10%) residents were deemed by the interviewer not cognitively able to complete the survey, 26 (10%) refused, and nine (3%) were ill or unavailable during the interviewer’s visit to the facility. The final participant sample included 198 residents. To compare with the St. John’s Nursing Home Board study (West & MacDonald, 2003) which included in its original sampling frame all residents who were not in a persistent vegetative state, 13% of residents approached, who were able to communicate, were deemed by the researcher not cognitively able to complete the quality of life survey.

The responses of 133 female (67%) and 65 male (33%) residents were included in the analysis. Participant age (based on the 157 participants who disclosed their age) ranged from 47 years to 103 years, and the average age of participants was 85.9 years. The final sample represented 39% of the total LTC population within the HHR and 77% of the original sampling frame based on CPS data.

3.1.2 Staff sample. One hundred thirty-one (N = 131) staff members at each of the 15 LTC facilities participated in the survey questionnaires. Of the staff participants, 31 (24%) were Registered Nurses (RNs), eight (6%) were Licensed Practical Nurses (LPNs), 70 (53%) were Special Care Aides/Nurse Aides (SCAs), 12 (9.2%) Activity Workers, and seven (5%) were dietary and housekeeping staff. Ninety-seven percent (N = 127) of the staff participants were female. Two (1.5%) staff participants were male, and two did not report their gender. Table 2 lists the age categories of staff participants.

Table 3

Age Categories of Staff Participants

Age Category (Years)	n	% of sample
17 - 25	2	1.6
26 - 35	16	12.6
36 – 45	37	29.1
46 – 55	51	40.2
56 – 65	21	16.5

3.4 Measures

3.4.1 Quality of life survey. To assess the quality of life of LTC resident participants, a comprehensive, 10-domain quality of life scale developed by Kane and colleagues (2003) was employed. The quality of life survey can be found in Appendix A. As previously mentioned, the original scale included 11 domains, but the domain subscale *Individuality* was found by Kane and colleagues (2003) to be redundant with items within the *Relationships* subscale and was consequently omitted from the overall scale. Thus, the present study employed only the

remaining 10 domain subscales found to have sound structure (Kane et al., 2003). The number of questions in each domain subscale range from three to six, totaling 48 items in the overall scale. Although the *Relationships* sub-scale includes questions about relationships with staff, a scale specifically measuring staff-resident interaction was added in the interest of examining the staff-resident dynamic more directly. A nine-item *Staff-Resident Interaction* sub-scale within a multi-domain quality of life measure similar to Kane's was used in long term care facilities in British Columbia and Ontario (Hospital Report, 2001, Complex Continuing Care). The Hospital Report lists the internal consistency of this scale at .85. Seven items from this extra *Staff-Resident Interaction* sub-scale were used in conjunction with Kane's measure in an evaluation of quality of life by the St. John's Newfoundland Nursing Home Board (West & MacDonald, 2003). The present study utilized this modified 7-item *Staff-Resident Interaction scale* for comparison purposes to the West and MacDonald (2003) study. West and MacDonald (2003) did not report on the reliability of any scales. Including the *Staff-Resident Interaction* scale, the total resident quality of life survey used in the present study includes 55 items, within 11 domains.

Questions are asked in a manner that asks the participant to recall the frequency of an event during the past few months. Closed-ended response options include Likert format: *Often*, *Sometimes*, *Rarely*, *Never*, or a binary response format: *Mostly yes* or *Mostly no*. As in Kane et al. (2003), residents were given the option to use either response format (Likert or dichotomous) or a combination of both. Kane and colleagues (2003) developed a scoring system to combine the two response formats based on z – transformations of each item, separately for the Likert and dichotomous response options. For most items, the “yes” responses corresponded to 3.8 and “no” responses to 1.5 on the Likert scale. Therefore, the interpolated scoring system is as follows: *Often* = 4; *Mostly Yes* = 3.8; *Sometimes* = 3; *Rarely* = 2; *Mostly No* = 1.5; *Never* = 1. Some

questions are worded negatively, and were therefore reverse coded to calculate the total score. For example, these questions are asked in such a way that a response of “Often” received a score of “1”, and a response of “Never” received a score of “4”. West and MacDonald (2003) report using the same recoding scheme in the St. John’s Nursing Home Board Resident and Family Survey Report.

Kane and colleagues (2003) report that the scale indicates adequate internal consistency, with Cronbach’s alphas of each scale ranging from .53 for meaningful activity .77 for functional competence. Kane and colleagues (2003) report a lack of test-retest data from initial testing phases, but are presently in the process of examining the reliability of resident responses over time.

The present study found the internal consistency of the original 10-domain (48-item) quality of life scale developed by Kane and colleagues (2003) to be good, with a Cronbach’s alpha of .77. The total 11-domain scale used in this study (55 items), including the Staff-Resident Interaction subscale, also indicated good internal consistency, with Cronbach’s alpha of .79. The reliability ratings of five of the individual subscales were less than .60 (Comfort, Privacy, Meaningful Activity, Relationships, and Security). The subscales of Autonomy and Spiritual well-being had relatively higher internal consistency. Four subscales had Cronbach’s alphas of .70 and above, and are considered to indicate good internal consistency (Functional Competence, Dignity, Food Enjoyment and Staff-Resident Interaction). The internal consistencies of the subscales for the present study and those found in Kane and colleague’s (2003) scale development study are found in Table 4. It should be noted that the number of items in each domain subscale range from three to seven. Also, two items from the original scale were omitted from analyses because more than 60% of resident respondents did not endorse the item,

responding “Not Applicable” to the item. One item was removed from the Autonomy subscale, (#36: “Have you been successful at making changes in the things you do not like?”) and one item was removed from the Staff-Resident Interaction subscale (#55: “Do you get help to eat when you want it?”). The removal of these items was necessary for analysis, and they will be addressed in the discussion. The number of items used in the analysis of each subscale, and the Cronbach’s alphas for each of the subscales are listed in Table 4.

Table 4

Internal Consistencies of Quality of Life Domain Subscales

Domain	Number of Items	Cronbach’s Alpha (α)	
		Present Study	Kane et al. (2003)
Autonomy	3*	.61	.59
Comfort	6	.56	.62
Functional Competence	5	.74	.77
Privacy	5	.46	.70
Dignity	5	.71	.76
Meaningful Activity	6	.52	.53
Relationships	5	.57	.64
Food Enjoyment	3	.74	.71
Spiritual Well-Being	4	.67	.64
Staff-Resident Interaction	6*	.73	.85 ⁺
Security	5	.55	.65

* indicates one item less than the original subscale, due to lack of item endorsement among the present sample.

⁺ indicates the reliability reported in the Hospital Report, 2001: Complex Continuing Care study

To measure overall well-being among the present rural LTC population sample, the Memorial University of Newfoundland Scale of Happiness (MUNSH; Kozma & Stones, 1980) was also administered (see Appendix B). The MUNSH was developed as a self-appraised measure of mental health among the elderly. The MUNSH is classified as a measure of general subjective psychological well-being (Andrews & Robinson, 1991). Correlational and longitudinal research suggests that the evaluation of subjective well-being should encompass both negative and positive affective experiences, as well as disposition (Stones et al., 1996). The MUNSH includes 24 positively and negatively valenced questions measuring both short-term (affective) and long-term (dispositional) components. Ten of the questions are affect-oriented, asking how the respondent has been feeling in the past months. The remaining 14 dispositional items query general life experiences, and require the respondent to reflect back on his or her life.

Responses are given as “yes”, “no” or “don’t know”. A “yes” response is scored as a 2, a “don’t know” as a 1, and “no” as a 0. Four separate scales scores are computed; a Positive Affect (PA) scale score (the sum of responses to all positive affect questions), a Negative Affect (NA) scale score (the sum of responses to all negative affect questions), a Positive Experience (PE) scale score (the sum of responses to positive experience questions), and a Negative Experience (NE) score. The difference between the Affect scales (PA-NA) and the Experience scales (PE-NE) is summed, and a constant of 24 is added to obtain a total MUNSH score. Total scores can range from 0 (lowest happiness) to 48 (highest happiness). Although negative and positive MUNSH items do not require recoding to obtain a total score, they must be recoded as such in order to perform reliability analyses.

The MUNSH has good reported internal consistency, routinely exceeding Cronbach alphas of .8 (Kozma & Stones, 1989). Test-retest reliabilities of the scale range from $r = .4$ to $r =$

.7 over 18-48 month intervals (Kozma & Stones, 1983a). Kozma and Stones (1980) report good convergent validity of the MUNSH in comparison to indexes of depression, psychopathology, life satisfaction, morale, health and activity levels. The MUNSH has shown predictive validity by distinguishing between institutional and community-dwelling samples (Stones & Kozma, 1989). The MUNSH is reportedly appropriate for adults of all ages, and is minimally impacted by social desirability bias (Stones et al., 1996). The present study found the overall internal consistency of the MUNSH to be good, with a Cronbach alpha of .85.

3.4.2 Staff questionnaire. A 23-item questionnaire was created to assess the perceived routinization of the LTC environment, and the degree of mindlessness experienced among LTC staff. The staff questionnaire is located in Appendix C. The response format for all 23 items is a 7-point Likert scale, ranging from Strongly Disagree (1) to Strongly Agree (7). Thirteen of the items comprise a measure of routinization within the LTC facility. Thus, each staff respondent received a routinization score out of 91. The Cronbach's alpha for this routinization scale indicated satisfactory internal consistency ($\alpha = .73$). It is important to note here that two separate overall routinization scores were calculated: one for all staff within the sample and one routinization score for each specific facility, based on the average routinization score among staff from that facility. The facility specific routinization score is necessary to use in the correlation analysis between staff-perceived routinization and resident-reported quality of life within the same environment (i.e., facility).

Four of the staff questionnaire items are intended to assess the prevalence of mindlessness experienced by staff during their workday. These items were developed on the basis of Langer's (1989) description of the ways in which mindlessness manifests in behavior, and tailored to be relevant within a LTC working environment. Each staff respondent received a

score on this mindlessness scale out of a possible 28. The Cronbach's alpha for this mindlessness scale was .65. The remaining 6 independent items are outcome measures regarding the amount of impact staff perceive they have on the quality of life of residents, their perceived level of efficiency in the work environment, and the degree of autonomy perceived to be granted to residents. Included in the staff questionnaire are demographic questions (sex, age category, job title). Staff were asked to list (up to six) training sessions or workshops they have taken in the past year, as well as the number of years they have worked in LTC, in order to test for a relation between perceived routinization and education opportunities/work experience. A section at the end of the questionnaire was reserved for any additional comments staff participants to make if they wished.

3.5 Procedure

3.5.1 Resident interviews. The researcher approached each resident who consented to be considered for an interview. The researcher then read aloud the resident consent form (Appendix D) and asked if the resident had any questions or concerns. Residents who agreed to participate in the interview were then asked to complete the consent form. Residents who were unable to sign their name due to physical limitations (e.g., hand tremors, paralysis) gave verbal consent, or signed an "X" as well as they could. All participants were given a copy of the consent form for their records.

On occasions where the researcher was in doubt of the residents' ability to meaningfully consent to be interviewed, or to meaningfully answer the interview items, the researcher engaged in a few minutes of general conversation with the resident to probe for indications of orientation to time and place. If a resident indicated during conversation either before or during the interview that he or she did was not oriented to the facility in which they lived (e.g., resident

states that he or she only comes to the facility to have their hair done), the researcher ceased recording data and any data recorded up until that point was dismissed. The researcher continued to engage the resident in a few minutes of whatever unstructured conversation they were capable of, in order to preserve their dignity, and give them the opportunity to contribute their feelings and/or experience. The resident was then thanked for his or her time.

Resident data was collected through individual interviews. Such a direct approach is recommended versus self-administered questionnaires because LTC residents have varying levels of physical and cognitive ability, and may have difficulty reading and writing due to visual impairment or literacy level. Residents who were too hard of hearing to understand the researcher's verbal questions, but who could see well enough to read were given a large print copy of the interview questions to follow. In two cases, where due to total deafness or severe visual and hearing impairment, residents communicated primarily by writing messages on a dry-erase board, the researcher used this means of communication to collect the responses.

The majority of the interviews were conducted individually in a private room with the door closed, generally the resident's room or a quiet "family" room if the resident had a roommate. In two cases the interviews took place in the presence of the resident's spouse, with whom they shared a room, and a few times with the resident's roommate present. On all of these occasions both parties present verbally consented to this arrangement. Resident interviews took approximately 40 minutes to complete.

Facilities were visited in random order from May 31st, 2004 to August 25th, 2004. The researcher collected data over the course of consecutive days and evenings, depending on the number of residents from each facility meeting the eligibility criteria. During each site visit, staff

members were invited to meet the researcher, received a brief orientation to the project, and were invited to ask the researcher questions.

3.5.2 Staff questionnaires. Staff members at each sample facility who were available were encouraged to attend a brief introduction to the purpose of the study, and asked to fill out the staff questionnaires at their convenience. The researcher explained confidentiality and reassured the staff that their identity would not be known, and that no one besides the researcher would view their completed questionnaires. Questionnaires were left in places where staff gathered on a regular basis, such as nursing stations or staff rooms. Each questionnaire came with a cover letter (Appendix E) and a stamped addressed envelope to return to the researcher. The cover letter stated that consent would be implied by returning the completed questionnaire, and thus no separate consent form was necessary.

4. RESULTS

4.1 Resident Quality of Life and Well-Being

4.1.1 Scale properties and Inter-correlations. Table 5 contains subscale means and standard deviations for each quality of life survey domain. Correlations among domain subscales measured in the quality of life survey suggest that the domains are related yet independent constructs. Just 4 out of 55 possible correlations between pairs of domain totals exceeded 0.4. These correlations include autonomy and functional competence, privacy and dignity, staff-resident interaction and dignity, and spiritual well-being and meaningful activity. None of the possible pairs had a correlation of .5 or more. Table 6 contains the correlations between quality of life subscales.

Table 5

Quality of Life Survey Domain Subscale Means and Standard Deviations

Domain	Mean	S.D.
Comfort	3.25	0.49
Functional Competence	3.34	0.55
Privacy	3.48	0.35
Dignity	3.69	0.32
Meaningful Activity	2.84	0.53
Relationships	3.15	0.47
Autonomy	3.24	0.61
Food Enjoyment	3.28	0.57
Spiritual Well-Being	3.25	0.56
Security	3.40	0.37
Staff-Resident Interaction	3.39	0.36
Quality of Life Scale Total	3.30	0.26
MUNSH*	29.0	9.80
Routinization (Staff)**	55.16	11.49
Mindlessness (Staff)♦♦	15.40	4.65

* Scores out of a maximum of 48.

** Scores out of a maximum of 91.

♦♦ Scores out of a maximum of 28.

All other scores range from 1 – 4.

Preliminary analyses were run to detect differences in quality of life scale scores and MUNSH scores based on the demographic variables of resident's sex, age, and the number of residents living in the LTC facility. Female participants scored significantly higher on the quality of life scale ($M = 3.33$, $SD = 0.27$) than male participants ($M = 3.24$, $SD = 0.25$), $t(1,195) = 2.156$, $p = 0.032$. No sex differences were detected in MUNSH scores.

The number of residents in the LTC facility was negatively correlated with total quality of life score ($r = -.203$, $p = .004$), and negatively correlated with the domains of Dignity ($r = -.202$, $p = .004$), Relationships ($r = -.331$, $p < .001$), and Spiritual Well-Being ($r = -.140$, $p = .05$). The number of residents in each facility was not significantly related to MUNSH scores, nor was resident age. To test for differences in reported quality of life and MUNSH scores based on the size of facility the residents live in (i.e., small, medium or large), two ANOVAs were conducted. The means and standard deviations (SD) for quality of life and well being scores by small, medium and large sized facilities are contained in Table 7. Significant differences in quality of life based on facility size were found in the first ANOVA, $F(2,196) = 4.34$, $p = .01$. Post Hoc tests (Bonferroni) revealed that residents in large sized facilities reported significantly lower quality of life than did residents in medium sized facilities ($p = .02$). No significant difference was detected in quality of life between large and small sized facilities. The second ANOVA conducted to test for differences in MUNSH scores based on facility size yielded non significant results, $F(2, 172) = 2.408$, $p = .09$.

Routinization and quality of life

Table 6.

Correlations: Resident Survey

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.Autonomy	--	.107	.427**	.316**	.352**	.157*	.116	.251**	.089	.229**	.200**	.552**	.129	-.188**	.006	-.063	-.112
2.Comfort		--	.354**	.167*	.304*	.316**	-.049	.356**	.119	.094	.351**	.509**	.406**	-.008	-.029	.115	.002
3.Function			--	.270**	.342**	.212**	.110	.110	.110	.087	.158*	.537**	.139	-.004	-.050	.055	-.080
4.Privacy				--	.421**	.214**	.277**	.175*	.270**	.340**	.230**	.552**	.161*	-.165*	-.144*	-.015	-.072
5.Dignity					--	.267**	.366**	.279**	.296**	.423**	.354**	.667**	.271**	-.178*	-.134	-.116	-.202**
6.Activity						--	.323**	.332**	.432**	.153*	.259**	.620**	.613**	-.002	-.067	-.060	-.060
7.Relations							--	.226**	.380**	.372**	.152*	.515**	.169*	-.173*	-.164*	-.026	-.331**
8.Food								--	.227**	.277**	.377**	.605**	.371**	-.098	-.086	-.010	-.133
9.Spiritual									--	.248**	.253**	.563**	.392**	-.003	-.123	.041	-.140*
10.Interaction										--	.285**	.521**	.156*	-.227**	-.068	-.072	-.110
11.Security											--	.555**	.301**	-.091	-.120	-.066	-.006
12.Total QoL												--	.536**	-.167*	-.153*	-.025	-.203**
13.MUNSH													--	.110	-.142	.137	.098
14.Routinization														--	-.023	.178*	.374**
15.Sex															--	-.131	.000
16.Age																--	.124
17.Facility Capacity																	--

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Table 7. Quality of Life and MUNSH by Facility Size: Means and Standard Deviations

	Small			Medium			Large		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Quality of Life *	42	3.34	0.22	75	3.35	0.26	80	3.23	0.28
MUNSH**	37	26.22	10.70	62	30.18	9.86	76	29.33	9.11

* Scores range from 1 - 4

** Scores range from 0 - 48

4.2 Quality of Life Domain Predictors of Well-Being

4.2.1 Correlations. Table 6 contains the correlations between the MUNSH and each quality of life domain subscale. Contrary to Hypothesis One, there was no significant correlation between the quality of life domain, Autonomy, and MUNSH scores. With the exception of Autonomy and Functional Competence, all other quality of life domains were significantly related to MUNSH scores. Given that the domains of Relationships and Staff-Resident Interaction were among those significantly correlated with MUNSH scores, this lends support to part of Hypothesis Two. Of all domains, Meaningful Activity was the most highly correlated with the MUNSH. This result was not predicted for.

4.2.2 Hierarchical Regressions. First, a hierarchical regression analysis was conducted with MUNSH scores as the criterion variable, whereby relevant demographics were entered on the first step, followed by the overall quality of life score on the second step. Because resident sex and number of residents living in the LTC facility were significantly related to overall quality of life scores, they were included in the first step of the regression. Resident age was not related to the overall quality of life score, or to the MUNSH. However, age has been demonstrated in past research to be related to overall happiness, and was therefore included in the first step. The number of participants included in the regression analyses was reduced from

the total N by 67 persons who were not able to respond to all subscales of the quality of life survey and/or the MUNSH, generally for reasons including fatigue and time constraints.

After the second step, with all four variables in the equation, $R = .60$, $F(4, 131) = 18.06$, $p < .001$. Following the introduction of resident age, sex and the number of residents living at the facility into the equation on the first step, marginal predictive ability was evidenced, $R^2_{chg} = .054$, $F(3, 132) = 2.5$, $p = .06$. The addition of the total quality of life score (including the Staff-Resident Interaction subscale) on the second step resulted in a significant increase in R , $R^2_{chg} = .301$, $F_{chg}(1, 131) = 61.2$, $p < .001$.

A second hierarchical regression was then performed to examine the unique variances in MUNSH scores accounted for by the 11 separate quality of life domain subscales. Although the Autonomy and Functional Competence domain subscales were not significantly correlated with MUNSH scores, their correlation values approached those of other domain subscales which were significant (see Table 5). Tabachnik and Fidell (2001) recommend that marginal correlations should also be entered into a hierarchical regression equation. After the second step with all 15 variables in the equation, $R = .73$, $F(14, 135) = 9.75$, $p < .001$. As for the first hierarchical regression, the variables resident sex, resident age, and facility size were entered into the regression equation on the first step. Together, the 11 domains accounted for a significant amount of the variance in MUNSH scores, producing a significant change in R , $R^2_{chg} = .48$, $F_{chg}(11, 121) = 11.13$, $p < .001$. The combined quality of life domains accounted for approximately an additional 48% of the variance in MUNSH scores after controlling for the influence of the demographic and facility variables on the first step. Three quality of life domains emerged as unique predictors of variance in MUNSH scores: Meaningful Activity, Comfort, and Food

Enjoyment, accounting for approximately 12%, 2% and 2% of the unique variance in MUNSH scores, respectively. Both regressions are summarized in Table 8.

4.3 Quality of Life, Well-Being and Routinization

The analysis strategy for those hypotheses relating to mindlessness and routinization (Hypotheses three through five) involved comparing two samples of different sizes (i.e., LTC residents and staff). Routinization of the LTC environment was assessed from the responses of a sample of LTC staff employed at the same facilities as the resident sample. The routinization score for each resident participant is represented by the average routinization score based on the responses of LTC staff within the same facility.

4.3.1 Correlations. Correlational analyses were based on the mean mindlessness and routinization scores among staff at each facility, and on the mean quality of life, well-being and routinization scores among residents at each facility. As predicted in Hypothesis Three, Routinization was negatively related to overall resident quality of life, ($r = -0.167, p = 0.02$). However, Hypothesis Three also predicted that the same relation would be evidenced between routinization and well-being, but the two were not significantly correlated. Correlations were conducted to test the relation of routinization to each quality of life domain. In support of Hypothesis Four, routinization was found to be negatively related to resident Autonomy. Counter to the predicted direction of correlation, routinization was found to be negatively related to the quality of life domains of Relationships and Staff-Resident Interaction. Significant correlations which resulted but were not predicted include negative correlations between routinization and the quality of life domains of Privacy and Dignity. Correlations are presented in Table 6.

Table 8
Hierarchical Regressions

	r	B	β	sr ²	
STEP 1					$R^2_{chg} = .054$
Resident Age	.135	.108	.100	n.s.	
Resident Sex	-.189	-3.747	-.180*	.032	
Number of LTC Beds	.086	.044	.08	n.s.	
STEP 2 (<i>Regression 1</i>)					$R^2_{chg} = .301$
Quality of Life Total			.564**	.301	
					$R^2 = .355$
					Adjusted $R^2 = .336$
					$R = .596$
STEP 2 (<i>Regression 2</i>)					$R^2_{chg} = .476$
Comfort	.407	3.577	.176*	.018	
Function	.123	-1.167	-.066	n.s.	
Privacy	.186	.077	.003	n.s.	
Dignity	.256	2.368	.069	n.s.	
Meaningful Activity	.595	8.484	.433**	.122	
Relationships	.095	-.455	-.018	n.s.	
Autonomy	.150	-.825	-.051	n.s.	
Food Enjoyment	.396	2.581	.049*	.015	
Spiritual Well-Being	.428	1.872	.106	n.s.	
Security	.326	2.645	.095	n.s.	
Staff-Resident Interaction	.182	1.937	.072	n.s.	
					$R^2 = .530$
					Adjusted $R^2 = .476$
					$R = .728$

* Significant at the 0.05 level.

** Significant at the 0.01 level.

4.4 Routinization, Mindlessness and Perceived Impact on Residents

Hypotheses Six and Seven involve predictions relating only to the responses of the staff sample. To test Hypothesis Six, a correlational analysis was conducted comparing individual staff routinization and mindlessness scores. In support of Hypothesis Six, staff's perceived level of routinization in their work environment was positively correlated with mindlessness (see Table 9 for staff survey correlations). Correlational analyses were also conducted to test Hypothesis Seven that routinization is negatively related to staff's perceived positive impact on the lives of residents. Results indicate no significant correlation between routinization and perceived positive impact, and therefore do not support Hypothesis Seven.

No explicit predictions were made regarding the relation of mindlessness to other staff-related variables besides routinization. However, for exploratory purposes, some mention of significant findings regarding this relationship is noted. Mindlessness was found to be positively related to age of the staff respondent, the number of years spent working in LTC, and agreement with the item "sometimes things get so hectic at work that not everything gets done". Mindlessness was found to be negatively related to perceived positive impact on the lives of residents, perceived facilitation of resident autonomy, and perceiving that adequate time is allowed to meet the needs of individual residents.

Routinization and quality of life

Table 9
Correlations: Staff Survey

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Routinization	--	.545**	.289**	.141	-.130	-.023	-.219*	-.098	.181*	.004	-.142	-.193*	-.278**
2. Facility Routinization		--	.249**	.304**	-.073	.164	-.170	.009	.193*	-.092	.002	-.281**	-.308**
3. Mindlessness			--	.027	.189*	.256**	-.026	-.207*	.251**	-.286**	-.201*	-.332**	-.397**
4. Facility Capacity				--	.012	.076	-.232*	.099	.001	.053	.032	.019	-.034
5. Staff Age					--	.421**	.119	.035	.033	-.075	-.205*	-.095	-.062
6. Years worked in LTC						--	.061	-.094	.141	-.145	-.046	-.185*	-.069
7. # of Inservices./workshops attended in past 2 years							--	-.124	.225*	-.198	-.035	-.288*	-.021
8. "I believe my work here has an impact on the residents' quality of life"								--	-.069	.068	-.014	.171	.252**
9. "Sometimes things get so hectic...not everything gets done"									--	-.329**	-.115	-.140	-.023
10. "I have enough time... to attend to the individual needs of each resident"										--	.173*	.191*	.029
11. "Residents are free to participate in leisure activities of their choice" (Autonomy)											--	.292**	.141
12. "Residents are given the opportunity to choose whom to sit beside during activity" (Autonomy)												--	.348**
13. "Residents are given the choice to decide what to wear" (Autonomy)													--

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

5. DISCUSSION

This study was conducted to answer multiple questions about the experience of those who live and work in a rural LTC facility. The results pertaining to the questions focusing on specific areas of quality of life from the perspective of LTC residents were not entirely as predicted. However, the predictions relating to the perceptions and experiences of LTC staff were generally supported. The findings of this study highlight how the quality of life in LTC is related to the nature of the interaction between and among both staff and resident populations. These findings, both predicted and exploratory, will be further examined below. Findings will be further discussed in terms of their practical application and directions for future research.

5.1 Quality of Life in LTC

One of the main purposes of this study was to expand on research by Kane and colleagues (2003), which identified a number of domains as salient to the quality of life of persons living in LTC. To serve both theoretical and applied purposes, the present study sought to specify which domains of quality of life are most related to, and predictive of, overall well-being among LTC residents. Results of the present study indicate that participants' ratings of their quality of life were generally high. The total mean on the composite quality of life scale was above three on a four-point scale of satisfaction.

The apparent high rate of satisfaction among the mostly elderly resident sample is a positive finding at first glance. The quality of life scale was validated in the present study by its positive correlation with the overall well-being measure. Results suggest that the LTC population I sampled from is largely content. However, it would be an error to unquestioningly accept this outcome without first investigating its possible contributing factors.

The evidently high rate of satisfaction on the quality of life measure may reflect a ceiling effect. Similar high ratings of quality of life were found in West and Macdonald's (2003) study of quality of life among LTC residents in St. John's, Newfoundland. The overall scale mean in each the sample's seven facilities exceeded three on the four-point satisfaction scale (West & Macdonald, 2003). Other studies have also found the elderly to typically give high satisfaction ratings for their experience in acute healthcare (Chang et al., 2003; Larsson, 1999) and physical therapy (McKinnon, 2001).

The "elderly" may not be an entirely homogenous group when it comes to satisfaction ratings for health care. Lee and Kasper (1999) studied the effects of age category on satisfaction with medical services, and found that the "old-old" (i.e., patients aged 80 years and older) did not rate their experience as highly as did the "young-old" group (i.e., those aged 65 to 79 years), even after controlling for health status. A recent province-wide survey of acute patient satisfaction in Saskatchewan found that 78% of respondents older than 65 years rated their overall care as good or excellent, slightly fewer than those aged 40 to 64 years (79%) (Health Quality Council, 2005). A study performed in Greece measured the demographic variables associated with subjective quality of life ratings among elderly, and found no effect for age (among the sample of aged 63 to 100 years), but did find that elderly from rural, (versus urban) areas, rated their life satisfaction as higher (Efklides, Kalaitzidou & Chankin, 2003).

It must also be considered, for ethical reasons, that a proportion of the high overall satisfaction rating is possibly a reflection of residents' fear of disclosure. LTC residents are, by their circumstances, a population vulnerable to those who care for them and to the environment in which they live (Kane, 2001). Although all possible measures were taken to ensure confidentiality during resident interviews (e.g., interviews were held in private areas, questions

were asked at as low volume as possible), it cannot be guaranteed that all resident participants felt fully secure in the confidentiality of their responses. There is a chance, however remote or unwarranted, that a proportion of positive resident response can be attributed to anxiety over retribution for what may be perceived as complaining.

Regardless of the caution one might take in interpreting the “truth” of the resident participant’s quality of life ratings, the design of the present study represents a step forward, in that the residents themselves were asked directly to rate their quality of life (instead of relying on caregiver or family proxy responses). This research practice aligns with a care philosophy which values the perspective of the resident (cognitively competent or not) as the primary point of reference. The findings of a very recent study employing focus groups with 25 LTC residents with mild to severe dementia refuted the commonly held belief that residents with dementia are unable to communicate their experiences and opinions regarding their quality of life (Byrne-Davis, Bennett & Wilcock, 2006). The fact that the majority of the residents in the present study who were able to voice their opinions rated their quality of life highly, speaks importantly to the perceived high quality of care afforded to the residents in this sample, and lends support for the methodological decision to include residents with dementia when measuring quality of life in LTC.

5.2 Predictors of Well-Being

Together, all quality of life domains accounted for a substantial portion (over 50%) of the total variance in well-being. This finding lends validity to the scale developed by Kane and colleagues (2003). Each of the quality of life domains, with the exception of autonomy and functional competence, was positively related to overall well-being. Contrary to prediction, the three domains which emerged as unique predictors of overall well-being were meaningful

activity, comfort and food enjoyment. Of these three, meaningful activity accounted for the most variance (12%) The domain of meaningful activity also yielded the lowest satisfaction compared to all other domain scores. The domain findings will be discussed below in response to those hypothesized.

5.2.1 Autonomy. Based on previous research by Langer and Rodin (1976; Rodin & Langer, 1977), and Lawton (1991), and guided by Deci and Ryan's (1985) self-determination theory, I predicted that, of the 11 quality of life domains ,measured, autonomy would be the most related to, and predictive of, overall well being among LTC residents. This hypothesis was not supported, as results indicated that autonomy was not significantly related to overall happiness. This unexpected finding begs the question of whether this particular population truly places relatively lower value on autonomy, or if the results are due more to measurement issues, or if the sampling criteria regarding cognitive ability of the participants played a role.

According to the self-determination theory (Deci & Ryan, 1985), the need for personal autonomy is universal and basic. The apparent non-importance of autonomy to the present study sample seems to conflict with the immense literature which positions the autonomy of elderly in institutional settings as paramount to their well-being (e.g., Birren et al., 1991; Faulkner, 2001; Kane, 2001; Kasser & Ryan, 1999). My first inclination in the effort to explain this "anomaly" was to speculate whether there is something about the history and experience of this rural population that has created different priorities or values compared to their urban counterparts. I investigated the literature regarding the idea that this rural, communal, elderly population was perhaps, for example, accustomed to having limited personal control, and therefore did not rely on it to attain happiness. I did not, however, find support in the literature for a generational or rural setting effect on the need for autonomy.

The validity of the autonomy measure used in the present study is also called into question. Waking and rising times were the focus of two out of the three items within the autonomy measure used in the present study. I speculated whether the residents in the study's primarily rural elderly sample are quite used to having their waking and bed-times determined by necessity (of farm-life, for example), and were therefore not bothered by its regulation in the facility. The remaining item in the autonomy subscale was "can you decide on what clothes to wear?". Choice in the matter of clothing may not hold significant value within the present study population, compared to choice in matters such as finances, or food choices for example. The validity of the autonomy measure used here may not be well endorsed in the study population.

The seeming lack of endorsement for the importance of autonomy in this study may be a function of the "type" of autonomy assessed by the autonomy subscale. Collopy (1988) distinguishes the difference between decisional and executional autonomy: decisional autonomy exemplified by having preferences and making decisions, and executional autonomy expressed through actually carrying out the decided-upon action. Collopy (1988) notes that typically, executional autonomy begins to slip away for the frail elderly LTC resident as physical capability wanes, and decisional autonomy takes on a subsequent increased importance. Collopy (1988) highlights the necessity for LTC caregivers to recognize the validity of both types of autonomy, and strive to maintain and validate the decisional autonomy of residents, especially in the absence of their ability to exert executional autonomy.

Study participants' response to the autonomy subscale used in the present study may depend on how they interpret the type of autonomy referred to in the scale questions. The first question in the autonomy scale ("*Can you choose what to wear?*") questions the degree of decisional autonomy. The type of autonomy (decisional or executional) measured by the other

two subscale items (“*Can you go to bed/ get up in the morning when you want to?*”) is nebulous, and was perhaps confusing to the participants. For example, each could be interpreted either as “can I *physically* go to bed when I want?” (conceptualized as executional autonomy) or alternately as “can I *decide* when I want to get up/go to bed?” (conceptualized as decisional autonomy). In hindsight, I remember that some participants requested clarification, or demonstrated pauses or delays in their response to these questions, which may indicate confusion about the intent of the question.

Another explanation for the finding that autonomy is not a significant predictor of well-being in this population, may lie in the utility of the subscale. The autonomy subscale originally included four items, including the question of whether they had been successful in seeing changes made upon their request, within the facility. This item was removed prior to analysis because so few resident respondents endorsed it. On the other hand, even with only three items, the autonomy subscale showed higher reliability ($\alpha = .61$) than some of the other domain subscales.

Two-thirds of resident participants replied that they had never complained about anything in the first place. This response trend may imply that the majority of residents sampled had not encountered anything that either they did not like or that they felt the need to request be changed. Some residents may have been inclined to forget, or may have chosen not disclose past instances where they voiced concerns to staff. It should not be assumed that apparently positive results are necessarily benign. For example, it is possible that residents are simply not aware that they have a right to request changes, or that they are unaware of the appropriate channels to direct such requests. The prevalence and efficacy of resident advocacy in LTC settings is warranted more attention.

In summary, the reason why the present sample failed to endorse autonomy as a key predictor of overall well-being is not clear. Given the information available at this point, the most plausible explanations are that either that the autonomy subscale failed to tap into the particular type of autonomy salient to this population, or, that it lacked comprehensiveness to fully measure the degree of autonomy afforded to residents in their setting. In terms of resident quality of life, it matters less why residents seem to consider autonomy a “non-issue”, and more importantly that they report being generally satisfied with the degree of autonomy they are afforded, at least according to the type of autonomy measured in the study’s subscale (mean score = 3.24).

The model of learned dependency suggests that LTC residents will relinquish control, or autonomy in performing activities of daily life, in order to gain benefits of social interaction with the care staff who assist them in these activities (Baltes & Baltes, 1986). Given that autonomy was predicted to be the most salient contributor to overall well-being among LTC residents, and that the model of learned dependency (Baltes & Baltes, 1986) suggests that the benefit of autonomy can be substituted, in a sense, with satisfactory relationships with care staff, I predicted that the relationships and staff-resident interaction domains would emerge as independent predictors of overall well-being. Results indicate that unlike the autonomy domain, relationships and staff-resident interaction domain scores were related to overall well-being. However, the hypothesis was only partially supported, since neither domains (relationship nor staff-resident interaction) accounted for unique variance in overall well-being.

5.2.2 Relationships and staff-resident interaction. Neither relationships nor staff-resident interaction domains emerged as significant predictors of overall well-being. The relationships domain assessed satisfaction with, or involvement in relationships with both staff and other

residents. Several instances of anecdotal conversations between the researcher and participants, not captured in the quantitative data gathered, bring forth the possibility that the staff-resident interaction domain may have played a larger role in resident happiness than the results suggest. For example, when one particularly satisfied resident was asked (post-interview) by the researcher, “what is it that makes this such a great place to be?”, the resident exclaimed, with conviction, “the people who work here”.

The positive relation found between overall well being and staff-resident interaction in the present study is somewhat supported by those from a 2005 survey of patient satisfaction with the province of Saskatchewan’s acute care services included a measure of patients’ trust in nurses (Wohlgemuth et al., 2005). Patients within the region of the present sample population reported being significantly more satisfied with this item (86% satisfied) than did patients across the province (75% satisfied) (Wohlgemuth et al., 2005). Within the sample’s region, patients over the age of 65 years were the most likely age group to be trusting of nurses (88%) (Wohlgemuth et al., 2005). Although these results speak to the experience of the region’s acute care users, and not LTC residents per se, many facilities within the sample are integrated, often resulting in the same care staff working in both settings. Therefore, the high ratings of trust in nurses which emerged in the survey likely refer to many of the same nurses referenced in the present study.

Barkay and Tabak (2002) suggest that relationships with care staff fill the gap left in the social world of the institutionalized elderly, caused by various losses, including being uprooted from their home community in some cases. In the case of the present study, many residents had the good fortune to have remained in their home community upon admission to a LTC facility. The failure for relationships or staff-resident interaction to emerge as significant predictors of

well being may be related to a relatively low need among the present sample to have care staff compensate for past community connectedness.

Past research has found that having close friends is less common than is having non-intimate friends for LTC residents, and that the degree of friendship intimacy and volume of resident-friends varies by the facility's care regime and physical environment (McKee, Harrison and Lee, 1999). Other research has suggested that many elderly LTC residents avoid developing close friendships with fellow residents because they are not emotionally prepared to deal with the eventual death of these counterparts, often having recently undergone the loss of a spouse, siblings or friends (Cohn & Sugar, 1991). Differences in cognitive ability has also been cited as a perceived impediment among LTC residents to forming friendships, with more cognitively able residents typically avoiding relationships with residents who have dementia (Litz, Fischer & Arnold, 1992). All of the facilities in the present study integrate LTC residents of varying cognitive ability. Difficulty among the mostly cognitively able residents sampled to develop relationships with their fellow less-abled residents may have played a role in the failure for relationships to emerge as significant predictors of well-being.

5.2.3 Meaningful activity. Meaningful activity emerged as the highest predictor of overall well-being in the current study, accounting for 12% of the total variance in well-being. This finding was not exclusively predicted for, but has been found to be a similar predictor in other studies of well-being among LTC residents. Byrne-Davis, Bennett and Wilcock (2006) for example, found that residents with varying degrees of dementia identified "having things to do" as important to their quality of life. Other research (McKee, Harrison & Lee; 1999) found that LTC residents' level of activity was positively related to the number of good friends they had, but was not associated with well-being. Information regarding the relation between residents'

role identity and meaningful activity is currently emerging from recent studies on quality of life, especially for those with dementia (Cohen-Mansfield, Parpura-Gill & Golander, 2006). Such research has implications for optimizing the opportunity for LTC residents to engage in meaningful activity, and will be discussed further under the applications of findings.

In summary, hypotheses surrounding which quality of life domains played the largest predictive role in determining overall well-being among LTC residents were largely unsupported in the results. The domains of relationships and staff-resident interaction were shown to be related to overall well-being, as predicted. However, the strength of autonomy's predictive power, and even relation to, overall well-being was overestimated in the hypotheses. It is unclear whether this finding is due to a sample, or a measurement effect. Regardless, the results of the present study should not be interpreted to suggest that autonomy is not important to LTC residents in general. Similarly, although they did not emerge as unique predictors of variance in overall well-being, the relative importance of the other domains which correlated highly with the MUNSH (comfort, spiritual well-being, security, food enjoyment and dignity) should not be discounted. The apparent importance of meaningful activity, comfort and food enjoyment to the LTC residents in this sample, reveals optimal areas to capitalize on, and improve overall resident well-being.

5.3. Routinization and quality of life

Routinization is described by Perrow (1967) as the degree to which a job is repetitive. Routinization can also characterize a working, or living environment. Past research has pointed to the relation between routinization and low job satisfaction (Chu et al, 2003) as well as a sense of powerlessness (Kanter, 1977) among nursing staff in short term (i.e., acute) care settings. Almost none of the very small portion of literature on routinization in healthcare settings has

focused on LTC settings, or on the relation between routinization and well-being among recipients of care. One recent study tested the staff and resident outcomes of a nurse-aide empowerment strategy, and found there to be a link between decreased routinization, increased retention of, and decision-making power among nurse aides (Barry, Brannon & Mor, 2005). The same study found that increased decision-making power given to nurse aides was related to increased social engagement among LTC residents, as measured by the quality indicator item of the same title in the Minimum Data Set (Barry et al., 2005).

The present study endeavored to test for a direct association between the level of routinization in the LTC environment and resident well-being and quality of life, as defined by 11 domains (Kane et al., 2003). Routinization was measured in the present study from the perspective of LTC staff. It was predicted that higher perceived degrees of routinization in the LTC environment would be negatively related to quality of life, and to overall well-being among residents.

The outcomes of the present study suggest that residents who live within LTC environments perceived to be less flexible or spontaneous, are more likely to report lower satisfaction with their quality of life. This finding was evidenced by a significant correlation between the responses of two separate samples (i.e., the routinization ratings of staff and the quality of life and well-being ratings of residents). These two samples share the same environment on a day to day basis, but come from very different frames of reference: for residents, the LTC environment is their home; for staff, the LTC environment is a workplace. The fact that the reported perceptions of staff and the reported feelings of residents were significantly related lends credibility to the finding.

5.3.1 Routinization and autonomy. The present study sought also to explore which domains of quality of life were particularly related to routinization. First, it was predicted that resident autonomy would be negatively related to routinization. By virtue of the nature of routinization; the lack of flexibility or room for spontaneity in the course of daily life, it is not surprising that this prediction was supported. A routinized environment characteristically denies residents personal choice in terms of the ability to change their schedule to suit personal preference, or irregular circumstances. It is therefore, not surprising that low reported levels of autonomy coincided with staff's report of an inflexible, or routinized environment. Admittedly, the measure of routinization employed in this study included some of the same questions regarding the degree of choice afforded to residents in terms of their daily clothes and waking and bed times as were asked of the residents themselves in the quality of life questionnaire. However, the significant correlation found here again speaks to the agreement between resident and staff regarding the analysis of their environment.

5.3.2 Routinization and relationships and staff-resident interaction. Although resident autonomy and quality of life in general, were negatively related to routinization, it was speculated that routinization may be positively related to satisfaction in the quality of life domains of relationships and staff-resident interaction. This prediction stemmed from the model of learned dependency (Baltes & Baltes, 1986), which postulates that when faced with the reality of lost autonomy in LTC settings, residents may compensate for this loss by capitalizing on the benefit of social interaction, granted through guaranteed and predictable episodes of daily care tasks performed by care staff. It was speculated that there would be more opportunities for relationships to be built between residents and care staff when the schedule of day to day life was more routinized. For example, if Mrs. Jones is scheduled to have her hair curled every Tuesday

at 10am, (instead of whenever she requests it, or whenever the care staff take it upon themselves to offer) perhaps relying on this routine plays a role in guaranteeing a time set aside for relationship building between staff and residents. This prediction was not supported by the results, as the domains of relationships and staff-resident interaction were also negatively related to routinization.

The above hypothesis was exploratory, and was not directly suggested within Baltes and Baltes' (1986) description of the model of learned dependency, which does not speak to the concept of routinization at all. The pattern of results can be interpreted as supporting the proposition that following a strict schedule of tasks does not necessarily ensure optimal opportunity to foster resident-staff relationships. It may be that an environmental tendency toward routinization likewise leans toward a focus on non-resident related task completion. In other words, beds are more predictable than are people, and therefore attending to making beds, ahead of attending to people, allows better adherence to a routine. Further, if the tendency for care staff is to attend primarily to the tasks that are predictable, this predictability suggests that these tasks are also prone to be carried out mindlessly (Langer, 1989). If the LTC environment is focused on routine over responsiveness, then it is easy to see that a high level of routinization would not necessarily facilitate greater opportunity for relationship-building between residents and care staff.

5.3.3 Routinization and privacy and dignity. No other predictions were made regarding specific quality of life domains and routinization. However, analyses revealed that the domains of privacy and dignity were negatively related to routinization. Affordance of an elderly person's privacy has been often noted as to be a factor in maintaining their dignity (e.g., Birren et al. 1991; Cohn & Sugar, 1991; Lawton, 1991; Logsdon, 2001; Nores, 1997). The present study

found that the correlation between the domains of privacy and dignity ($r = .421, p < 0.05$) was the third highest among all inter-domain correlations. This finding can be interpreted as consistent with the general finding that resident quality of life is negatively related to routinization.

A demonstrated example of the negative relation between routinization and privacy might be a bathroom door inadvertently left open by staff, while occupied by a resident. The negative relation between routinization and dignity might be illustrated by the situation of rushing a resident out of their room in the morning for breakfast without allowing time for the resident to feel they look presentable. An inadequate amount of time and attention allotted to the LTC residents' sense of worth and respect may be at the heart of routinization's negative relation to privacy and dignity.

5.3.4 Routinization and well-being. The results indicate that although routinization is negatively related to quality of life, it does not seem to be related to overall well-being, or happiness as it is operationalized in the present study. The key to explaining this finding might lie in differences between the constructs of quality of life versus well-being. The questions on the quality of life scale assess satisfaction with components of day to day life in LTC. Routinization, as conceptualized in the present study, refers to the nature of these same day to day components in the LTC environment.

Conversely, the well-being scale asked residents to call upon past experiences and reflect on their lives, including before they came to live in LTC. Although most questions were posed as a one-month recall, the responses to the questions relating to overall well-being and happiness may reflect more of the resident's long-term outlook on life, and less about their perception of present-day life. From this frame of reference, the degree of routinization in the resident's present environment may not have played a role in responses regarding overall well-being.

5.4 *Routinization and Mindlessness*

An additional purpose of the present study was to test for a relation between LTC staff's perception of routinization in their workplace and their experience of "mindlessness", as described by Langer (1989). Since mindlessness is described as a state of compromised awareness, likely to occur in response to repetitive activity (Langer, 1989), the present study sought to explore whether staff respondents would report experiencing mindlessness when they also perceived their workplaces to be routinized. This was indeed the case, according to the findings. Those LTC staff respondents who perceived the environment to be more routinized also reported experiencing episodes of mindlessness at work.

The literature on mindfulness, and conversely, mindlessness, discusses how letting one's mind go on "auto-pilot" is not only counter to human potential, but potentially dangerous in some situations (Langer, 1989). Consider a surgeon who has performed a relatively minor, but complex surgery hundreds of times. In the case of a surgeon going blindly through the motions without being watchful for unexpected complications, mindlessness poses a serious threat to the patient's safety (Langer, 1989). While the consequences of caregiver mindlessness are perhaps not quite so dramatic in a LTC setting, it is not unreasonable to presume the risk of compromised awareness poses a potential threat to the overall well being of the resident. It is easy to imagine how a staff member whose foremost focus is on consistency and completion of tasks may lose perspective of the actual people who are on the periphery of that focus. Without the active awareness to recognize subtle aberrations in a resident's mood or behaviour from day to day, psychological and physiological problems may even be at risk of going undetected and subsequently untreated.

5.4.1. Routinization, Mindlessness and Perceived Positive Impact on Residents

Many of the staff members sampled in this study reported experiencing both mindlessness and routinization in the LTC environment. Routinization is speculated in the present study context to be an environmental characteristic that is not conducive to person-centred care. It was predicted that the nursing staff sampled in the present study who reported a higher level of routinization in their facility, would be less likely to report that their work has a positive impact on the residents' quality of life. Results, however, did not indicate a significant relation between these two variables.

Although not among the original predictions, mindlessness was found to be negatively related to care staff's perceived positive impact on resident's quality of life, and also to perceived facilitation of resident autonomy. It may be that within the LTC environment, mindlessness is characterized in part by staff performing caregiving activities for residents which some could actually do for themselves (thus diminishing resident autonomy). It may be that mindlessness causes the caregiver to fail to differentiate between individual recipients of care, and instead rely on one universal caregiving procedure for all.

The fact that an association was found between perceived positive impact on residents' quality of life, and mindlessness, but not routinization, begs further discussion. One possible reason for the lack of association between routinization and perceived positive impact is that caregivers and/or managers of LTC truly align adherence to routine with optimal quality of care. In such a case, getting everything on the "to do" list finished by the end of the shift would signify a job well done. It may be that staff value both routinization and having a positive impact on residents, but do not perceive the two to be at odds. The observed negative association between mindlessness and perceived impact on residents was perhaps due to staff regarding mindlessness

as a result of not having time to do everything. Mindlessness was significantly related to perceived inadequate time to meet the needs of the individual residents.

The question of whether mindlessness is a direct artifact of a routinized environment was neither asked nor answered by the present study. Mindlessness may be fostered by a rigid task routine, but it also may serve to perpetuate the routinization, or the status quo. A more comprehensively designed study (involving observation, for example) would be necessary to test whether the relationship is reciprocal. A reciprocal dynamic between mindlessness and routinization would potentially create an environment that is not conducive to change. LTC may exemplify an environment where it is not very easy to break an entire system out of its routine, and therefore especially vulnerable to mindlessness and routinization.

5.5. Practical Application of Findings

5.5.1 Meaningful activity. It appears from the resident's ratings of the quality of their lives in LTC, that overall satisfaction is generally high among this population. Results did, however, imply that the particular domain of meaningful activity might be a focused area for improvement. Resident satisfaction with the quality of meaningful activity in their daily lives was relatively low, compared to the other domain ratings. Of the domains, meaningful activity also emerged as the largest predictor of overall well-being. In response to the findings of this research, the domain of meaningful activity is suggested as an immediate focus for improving the lives of LTC residents. The individual items measured in the meaningful activity scale present tangible starting points for developing strategies for improvement.

One of the items in the meaningful activity subscale asks residents if they give help to others. This item had relatively low endorsement among the study sample. While helping others is not possible, or even desirable for each and every resident, it does represent a non-specific

activity that likely appeals, and is meaningful to some. Efklides and colleagues (2003) found that among rural dwelling elders in Greece, giving help to others was related to self-efficacy and contributed to morale. Byrne-Davis and colleagues (2006) identified “feeling useful” as a contributing factor to the quality of life of elderly with dementia. The researcher observed some examples of residents being engaged in helping activities, such as one resident helping clear the tables on a regular basis after the breakfast meal. Other observed examples included residents pushing other resident’s wheelchairs to meals and activities.

While these observations demonstrate a positive start, it is likely that a greater proportion of LTC residents have more to offer than they are currently encouraged to. Finding ways to facilitate meaningful activity among LTC residents requires a degree of creativity and knowledge of the individual resident’s history and capability. Recent research suggests that well-being can be maximized by tailoring activities to the specific role identities of LTC residents. Cohen-Mansfield and colleagues (2006) tested the effects of activity interventions relevant to salient role identities among a sample of LTC residents with mild to severe dementia. They found that residents in the intervention treatment group exhibited significant increases in interest, involvement, orientation and pleasure, as well as fewer agitated behaviours in comparison to the control group (Cohen-Mansfield et al., 2006). Although the study focused on strategies to improve the well-being of residents with dementia, highlighting role identities may have similar benefits for all LTC residents. The LTC population of the present study sample includes residents with varying degrees of cognitive function.

It is worth examining the possibility of modeling such strategies as Cohen-Mansfield and colleagues (2006) employed, in the study population, as a technique to enhance meaningful activity. The above study assessed each intervention-group participant’s most salient role identity

from among the four categories of professional, family, hobbies/activities, and traits/achievement identities, which emerged as the most commonly referred to identity categories among this population during elicitation research by Cohen-Mansfield and colleagues (2000). An example of a strategy used by the above researchers was to present a resident whose most salient identity is his former profession as an aviation engineer with the project of building a model airplane: even though the resident in this example was unable to complete this task himself, he exhibited pleasure and involvement in response to discussion about the parts and how the model should be constructed (Cohen-Mansfield et al., 2006). Employing this sort of an intervention, or improvement technique would certainly demand extra time on the part of care staff. However, Cohen-Mansfield and colleagues (2006) suggest that the benefits may outweigh the costs, especially in terms of reducing agitation and consequent need for pharmaceuticals among residents with dementia.

5.5.2 Routinization. Routinization was found to be associated with lowered quality of life for residents, and with the experience of mindlessness for staff. Routinization is a function of the entire LTC environment, and thus amendable not by the awareness and efforts of a few, but of all participants of that environment. Ultimately, making the LTC environment less routinized requires a change in the culture, or model of LTC itself. Making the environment of LTC more flexible and conducive to “living” is challenging, if not impossible under a strictly medical model of care.

Beyond the inappropriateness of the medical model of care of care, other factors may pose a challenge to person-centred care for LTC residents in rural settings. For example, often in relatively remote areas, LTC is housed in the same building as acute care services, with care staff often working in both areas, during the same shift. A shift toward person-centred care

within LTC would require care staff working in this context to “switch” approaches as they, sometimes literally, switch sides of the building. Especially true of integrated facilities, direct caregivers are often under the direction of multiple departments, each with their own idea of what is a priority. For example, the manager in charge of quality of care may place priority on regulated schedules of bed rest to avoid pressure ulcers. The dietician may be ultimately concerned that all residents receive a particular portion of fibre supplement at breakfast. The laundry department may be adamant that all beds are stripped by 9:30 am to ensure timely return of fresh linen. Although each department’s priorities are driven by the ultimate goal of patient care, these multiple agendas are not always compatible. Attempting to facilitate everyone’s agenda almost necessitates following to a rigid daily routine. Moreover, any individual deviance from that routine would be looked down upon, as it would disrupt the flow of efficient operation. A majority of the staff in the present study indeed endorsed the item on the questionnaire which asked if they adhered to the routine of the unit, because failing to do so would cause more work for the next staff on shift.

However, it is not impossible for this change in culture to begin at the health region or facility level. Clear direction regarding the priority of person-centred care is necessary from regional or facility leadership to endorse a systemic shift away from a focus on task-completion to occur on the front lines of LTC. First and foremost, leaders in care who are accountable for the provision of LTC need to adopt and commit to making LTC less institutional and more of what it truly is: a home.

Informing care staff participants in the present study of the negative association found between routinization and resident quality of life could create awareness, as a first step. Once care providers are assured, for example, that stopping to check how a resident is feeling that day

is a priority over making sure their laundry is put away, the process toward sustained change to a person-centred model of care might follow. Naturally, some caregivers will be more inclined than others to accept a shift in priorities. Those who are more entrenched in a medical model of care and/or committed to a long-held routine may be most inclined to resist change.

It should indeed be acknowledged at the outset of initiative toward a change in the culture of care that operating in a person-centred model of care takes more emotional and cognitive effort than does relying on a fixed routine. However, perhaps by being more cognitively involved in the day-to-day well being of individual residents, staff may be less likely to experience chronic mindlessness, and in turn, more likely to find satisfaction in the work they do. According to Chu and colleagues (2003), a greater involvement in the work of caregiving is related to increased job satisfaction among nurses.

5.6 Limitations of Study

The present study has expanded on the knowledge base concerning the factors associated with quality of life for LTC residents. However, the study has some inherent limitations that threaten the validity of the findings. These recognized limitations point to directions for future research.

5.6.1 Scale Validity. Two of the domain subscales of the quality of life measure (Kane et al., 2003) had to be altered before results were analyzed. The item “Do you receive help to eat when you need it?” was removed from the Staff-Resident Interaction domain subscale because 68% of residents responded “not applicable”. Since most residents included in the sample possessed (what appeared to the researcher as) relatively high cognitive and physical capabilities, it is understandable that this item would not pertain to the majority. The item “Have you been successful in making changes to things you do not like”? was removed from the autonomy scale

because almost two-thirds (60%) of the sample responded “not applicable”. The question as listed in the scale assumes that residents would have identified things they did not like and taken measures to have them addressed. Recognizing that this might be an incorrect presumption, the interviewer followed responses of “not applicable” with the question of whether the resident had ever tried to get anything he or she did not like changed. The majority of residents responded that they had not.

Given the predicted importance of autonomy in the present study, a major limitation involves the use of a short sub-scale of autonomy within a longer, comprehensive scale. Kane and colleagues (2003) do not propose each of the sub-scales to be exhaustive measures of each domain, but do not warn against using each separately to measure the specific domains. The three remaining items used in the analysis of the autonomy subscale in the present study may not adequately reflect the type of autonomy that is salient to the study population.

There may also be limited validity of the privacy sub-scale when applied to the population sampled in the present study. Kane and Kane (2001) reviewed interviews, focus group and questionnaire research eliciting the LTC preferences of older people, and reported that most residents would trade off activity programs for privacy. This was not supported within the present sample, possibly because the culture of the rural sample is relatively communal. For example, a frequent response to the question from the privacy subscale, “do staff knock on your door before entering your room” was “ I don’t really care if they do, besides my door is open most of the time”. This might either indicate that the sample of residents who agreed to participate is characteristically open and comfortable with various people.

Another limitation of the present study design is that the validity of the measure of routinization and mindlessness employed cannot be verified. A previously validated measure of

routinization specific to LTC environments could not be identified, thus requiring the development of such a scale for the purposes of this study. The scale was developed based on the personal experience gained by the researcher during previous work as a healthcare provider in LTC. The scale therefore adheres to principles of face validity. However, the scale has not been subjected to the rigorous testing that typically accompanies scale development. For this scale to be employed in further research, an exhaustive list of possible items would need to be developed through feedback and piloting with samples of LTC staff. Such a scale might then undergo factor analysis to determine which items fall together to form the components of routinization and mindlessness in the context of LTC. Despite its shortcomings, the responses to the routinization and mindlessness scale showed an expected pattern of correlations.

5.6.2 Scale Reliability. Some of the quality of life domain subscales evidenced very low reliability. Subscales with particularly low reliabilities were privacy and meaningful activity. Only three subscales had reliabilities over .70. During the scale development, a similar pattern of subscale reliabilities were found by Kane and colleagues (2003), yet none were below .50 (see Table 4). The low reliabilities found in the present study are partly due to the difficulties with subscales already mentioned. There was also generally low variability in resident responses to many scale items. Despite these difficulties, many predicted correlations emerged as significant. Perhaps if the study had employed more comprehensive measures of the specific quality of life domains and a validated measure of routinization, the effects of the findings would have been even stronger than were evidenced.

5.6.3 Sampling. The study used a purposeful sampling procedure to ensure that residents included in the sample were of adequate cognitive ability to participate. The next stage of sampling from those residents who met initial criteria proved more challenging. Due to

legislation concerning privacy of patient information, a degree of control over the final sample composition was necessarily compromised. It cannot be verified whether all potential participants were given the same opportunity to participate, because a member of the health region staff, rather than the researcher, was required to initially approach eligible participants. Although measures were taken to ensure that this process was carried out properly, the opportunity existed for staff gaining initial consent to participate to “select” residents for the final sample who would relay positive feedback on their quality of life or care. Additionally, patient privacy legislation disallowed the researcher access to the CPS (i.e. cognitive rating scores) of the resident sample. Including this information in the analyses would have served to inform future studies, regarding the appropriateness of the use of these measures among residents with various levels of cognitively ability.

5.6.4 Confidentiality. The limitation in terms of confidentiality in the present study is not one of procedure, but of ethics. The motivation of the present research is to advocate for more individualized person-centred care, yet obligations of confidentiality do not allow the researcher to be a voice for the concerns of any particular individual resident. The study procedure was necessarily inconsistent with direct efforts to improve individual resident’s life. The possibility existed for residents to feel betrayed in confiding their individual complaints without any efforts made in return to address their concerns.

5.7. Directions for Future Research

5.7.1 Quality of Life for Rural LTC Residents. The resulting low reliabilities from the subscales of the quality of life scale (Kane et al., 2003) used in the present study suggest that it may not be optimally applicable to a rural LTC sample. The failure of the present sample to endorse certain subscale items reinforces this position. It cannot be determined from the present

study whether the fact that the sample was “rural” per se played a role in the problems with the domain subscales.

Two methods of future research could be employed to answer this question. One method is to replicate with a solely rural sample the original qualitative elicitation research by Kane and colleagues (1998), whereby a large sample of LTC residents were asked to identify elements that contribute to their quality of life. Such a study would aim to determine whether there is some domain characteristic to this cohort that isn’t included in the original scale. Continuity with the past (i.e., heritage, community) may be an important facet of quality of life particularly for rural elderly as they transition to a LTC environment, for example. Another method is to replicate the present study using a larger sample of rural LTC residents, and conduct a factor analysis to test for the validity of the quality of life scale (Kane et al., 2003) for use in rural LTC settings.

5.7.2 Downward Social Comparison. An observation was made while conducting resident interviews during the present study. Many resident participants seemed to perceive their own well-being as good in comparison to others their age, regardless of their apparent ill health or functional limitations. The anecdotal history of the residents’ lives gathered through informal chatting prior to, or after the administration of the questionnaire, often did not seem, in the researcher’s opinion, to “match” the responses given on the scale of well-being/happiness. For example, one resident reported having lost both her husband and her son to cancer in the last year. She did reply feeling somewhat depressed in the last few months, but still scored above average on the total scale of happiness. In another case, a resident who did not present any indication of impaired cognition, but who was completely paralyzed due to stroke except for the ability to speak with great effort, replied that he thought he regarded himself “better off” than most people his age.

The apparent resilience and positive outlook of such participants may be related to the phenomenon referred to as downward social comparison, defined as a cognitive adaptation characterized by a shift in the contextualization of a situation as threatening, to relatively positive (Byrne-Davis et al., 2006). Byrne-Davis and colleagues (2006) found that many of their elderly participants (having varying degrees of dementia) made downward social comparisons when asked about what contributed to their quality of life. The study aimed to create a model of quality of life for persons with dementia, and propose that among this group, downward social comparison can serve to bolster quality of life judgments (Byrne-Davis et al., 2006). It is likely, from anecdotal evidence, that some of the residents in the present sample were employing downward social comparison in appraisal of their well-being.

Future research might focus on the self assessment of well-being among LTC residents in relation to other residents with whom they co-habit. Age and particular (dis)ability of residents are examples of factors to test for effects on perceived relative well-being. Which relatively able-bodied and minded residents would perceive their well-being to be reduced in the presence of those with lower functionality, and which residents would flourish in their perceived relative good fortune? The answer to this question may be partly a function of individuals' history, outlook on life, use of downward social comparison, and degree of resiliency. Such research could possibly lead to the strategic placement of particular LTC residents according to where they might best thrive and have their individual strengths optimized. It may be that residents who feel that they are in relatively good shape compared to others around them also feel that those others could benefit from their help. In the previously mentioned research by Cohen-Mansfield and colleagues (2006), one of the criteria for identity-specific activity interventions was that the intervention had to provide a sense of purpose. The example used to describe this

criterion was "...helping or providing something valuable to others." (Cohen-Mansfield et al., 2006, p. 208).

6. CONCLUSIONS

The hypotheses of the present study regarding the relative importance of particular quality of life domains among a sample of rural LTC residents were largely unsupported. Despite the findings of similar past research and relevant theories which suggested autonomy to be of paramount importance to quality of life, the results of the present study demonstrated that other quality of life domains, especially meaningful activity, are more predictive of overall well-being among this population. The present study also highlighted the negative relation between the degree of routinization in the LTC environment and the quality of life of residents, an issue previously unexamined directly.

The present study represents an expansion in both the research design and the knowledge base concerning the LTC environment and its players. The present research design attempted to reorient the study of quality of life among LTC residents to also be more person-centred, by asking LTC residents themselves about their perception of their own quality of life and well-being, rather than relying on the proxy opinions of others. Garnering perceptions directly from the source in question endorses the validity of the study's results. This validity is also reinforced in the fact that the LTC environment was assessed via the direct perceptions of the two main groups who create and exist in that environment: the care staff who work there and the residents who live there. Finally, perhaps because of the physical and geographical challenges involved, large-sample studies of this kind are typically not conducted in rural populations. This research serves as one more step toward a better understanding of health and well-being among

institutionalized elderly in rural areas. Work should continue, focusing on the particular needs of rural LTC residents, toward action plans for the achievement of person-centred care.

The impetus for the present study was the experience of the researcher as a care aide in a LTC facility, and the noted disconnect between resident's psychosocial needs and the nature of the LTC work environment. It is hoped that the evidence provided by the present research can help motivate change. Possible methods of increasing meaningful activity and creating a more person-centred environment within LTC facilities are suggested.

Improving LTC for both staff and residents is a task perhaps especially advisable for rural health regions. Many elderly people who need assistance understandably prefer to stay in their homes and in their communities. Traditionally, home care services have been available to meet this need, and have been sometimes viewed as a cost-effective alternative to LTC (National Evaluation of the Cost-Effectiveness of Home Care, 2001). Keefe (2002) cautions that cost-effectiveness of home care in rural areas is a presumption based on the idea that rural families are large and close-knit, and are available to help with informal care to supplement formal home care services, an assumption which has been referred to as the "myth of the Waltons" (Duncan & Radcliff, 2004). This presumption was challenged in a report released by the Prairie Women's Centre of Excellence, which found less than half of rural informal caregivers sampled had help from anyone else, and that many of these caregivers were elderly themselves (Jaffe & Blakely, 2000).

Problems in recruiting and maintaining nurses, inability to offer full-time employment for home care staff, and the cost of travel and time to provide home care to clients in various remote locations are to name a few other such challenges to sustaining cost-effective home care in rural areas. Improving the LTC environment may be the most prudent objective, given the present

and forthcoming task of preparing for the healthcare needs of an aging rural population, and in preparation for the next generation of LTC residents (i.e., the Baby Boomers), who are predicted to be qualitatively more critical and demanding of quality of care than the current resident cohort, represented in the present study (O'Boyle, 1997; Flaherty, 1998).

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APPENDIX A

Quality of Life Survey

Comfort

1. How often are you too cold here?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

2. How often are you so long in the same position that it hurts?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

3. How often are you in physical pain?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

4. How often are you bothered by the noise in your room?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

5. How often are you bothered by noise in other parts of the facility, for example, in the hallway?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

6. Do you get a good night's sleep here?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

Functional Competence

7. Is it easy for you to get around in your room by yourself?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

8. Can you easily reach the things that you need?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

9. If you are anywhere in the facility and need to get to a bathroom, can you get to one quickly?

Routinization and quality of life

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

10. Can you easily reach your toilet articles and the things you need to use in the bathroom?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

11. Do you do as much to take care of your own room and your own things as you can and want?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

Privacy

12. Can you find a place to be alone if you want to?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

13. Can you make a private phone call?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

14. When you have a visitor, can you find a place to visit in private?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

15. Can you be together in private with another resident (other than your roommate)?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

16. Do the people who work here knock on your door before they come in your room?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

Dignity

17. Do the staff here treat you politely?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

18. Do you feel you are treated with respect here?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

19. Do the staff handle you gently while giving you care?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

20. Do the staff respect your modesty?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

21. Do the staff take time to listen when you have something to say?

[Mostly Yes / Mostly No/ DK] [Often Sometimes Rarely Never]

Meaningful Activity

22. Do you get outdoors / Do you get outdoors as much as you would like?

[Mostly Yes / Mostly No/ DK] [As much as you want too much / too little]

23. About how often do you get outdoors?

Every Day Several times/week about 1/week less 1/week less1/month

24. Do you enjoy the organized activities here at the facility?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

25. Outside of religious activities, do you have enjoyable things to do here during the weekend?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

26. Despite your health concerns, do you give help to others, such as other residents, your family, people at this facility, or the outside community?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

27. Do the days seem long to you?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

Relationship

28. Is it easy to make friends here?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

29. Do you consider any other resident to be your close friend?

[Mostly Yes / Mostly No / DK] [Yes / No]

30. In the last month, have people who work here stopped just to have a friendly conversation with you?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

31. Do you consider any of the staff to be your friend?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

32. Do you think that [name of facility] tries to make this an easy and pleasant place for family and friends to visit?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

Autonomy

33. Can you go to bed any time you want?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

34. Can you get up in the morning any time you want?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

35. Can you decide what clothes you want to wear?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

36. Have you been successful in making changes in things that you do not like?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

Food Enjoyment

37. Do you like the food here?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

38. Do you enjoy mealtimes here?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

39. Can you get your favourite foods here?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

Spiritual Well-Being

40. Do you participate in religious activities here?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

41. Do the religious activities here have personal meaning for you?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

42. Do you feel that your life as a whole has meaning?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

43. Do you feel at peace?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

Security

44. Do you feel that your possessions are safe?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

45. Do your clothes get lost or damaged in the laundry?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

46. Do you feel that you can get help when you need it?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

47. If you do not feel well, can you get a doctor or a nurse quickly?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

48. Do you ever feel afraid because of the way you or some other resident is treated?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

Staff – Resident Interaction

49. Do the staff show you that they care about you?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

50. Do the staff help you when you need it?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

51. Is help freely given?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

52. When staff come to your room, do they tell you why they are there?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

53. Do the staff answer promptly when you call?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

54. Do the staff involve you in decisions about your care?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

55. Do you get help to eat when you want it?

[Mostly Yes / Mostly No / DK] [Often Sometimes Rarely Never]

APPENDIX B
The MUNSH Scale
(Kozma & Stones, 1980)

I would like to ask you some questions about how things have been going. Please answer “Yes” if a statement is true for you, and “No” if it does not apply to you. **In the past months, have you been feeling:**

1) On top of the world? (PA)

1

2

3

YES

NO

DON'T KNOW

2) In high spirits? (PA)

3) Particularly content with your life? (PA)

4) Lucky? (PA)

5) Bored? (NA)

6) Very lonely or remote from other people? (NA)

7) Depressed or very unhappy? (NA)

8) Flustered because you didn't know what was expected of you? (NA)

9) Bitter about the way your life has turned out? (NA)

10) Generally satisfied with the way your life has turned out? (PA)

The next 14 questions have to do with more general life experiences:

11) This is the dreariest time of my life (NE)

12) I am just as happy as when I was younger (PE)

13) Most of the things I do are boring or monotonous (NE)

14) The things I do are as interesting to me as they ever were (PE)

15) As I look back on my life, I am fairly well satisfied (PE)

16) Things are getting worse as I get older (NE)

17) Do you feel lonely? (NE)

18) Little things bother me more this year (NE)

19) If you could live where you wanted, where would you live? (PE)

20) I sometimes feel that life isn't worth living (NE)

21) I am as happy now as I was when I was younger (PE)

22) Life is hard for me most of the time (NE)

23) How satisfied are you with your life today? (PE)

24) My health is the same or better than most people my age (PE)

APPENDIX C:
Staff Questionnaire

The following items ask you about your impressions of certain activities that may occur within the Long Term Care facility that you work in. Please read through each item carefully and choose the response that best reflects your opinion. Please record your response by circling a number from 1 (strongly disagree) to 7 (strongly agree) for each item listed below. If you feel that a specific item does not apply to facility or experiences, circle N/A as your response.

	Strongly Disagree		No Opinion		Strongly Agree			
1. At my place of work, a strict routine is followed.	1	2	3	4	5	6	7	N/A
2. Residents are free to participate in leisure activities of their choice at any time of day.	1	2	3	4	5	6	7	N/A
3. Sometimes things get so hectic at work that not everything gets done.	1	2	3	4	5	6	7	N/A
4. There is pressure from other staff members to keep to the routine of the ward.	1	2	3	4	5	6	7	N/A
5. Generally, residents all get up at the same time in the morning.	1	2	3	4	5	6	7	N/A
6. When things get busy, I sometimes don't even notice who the individual resident is that I'm helping to toilet/feed, etc.	1	2	3	4	5	6	7	N/A
7. There is a lot of flexibility in the routine on my unit.	1	2	3	4	5	6	7	N/A
8. It is common on my unit for the regular resident bedtime schedule to be readjusted according to resident suitability.	1	2	3	4	5	6	7	N/A

Routinization and quality of life

	Strongly Disagree		No Opinion		Strongly Agree			
9. Residents are given the opportunity to decide who they want to sit with during meal times/activity times.	1	2	3	4	5	6	7	N/A
10. Management expects the care staff to follow a strict daily routine.	1	2	3	4	5	6	7	N/A
11. Residents are given the chance to decide what clothes they wear.	1	2	3	4	5	6	7	N/A
12. I avoid going against the routine of the ward/facility because it creates more work for the staff coming onto the next shift.	1	2	3	4	5	6	7	N/A
13. Generally, residents are all encouraged to go to bed at the same time each evening.	1	2	3	4	5	6	7	N/A
14. It is common on my unit for the regular resident bath schedule to be readjusted according to resident suitability.	1	2	3	4	5	6	7	N/A
15. Generally, residents are all encouraged to have a nap/rest at the same time.	1	2	3	4	5	6	7	N/A
16. I feel my work is repetitive.	1	2	3	4	5	6	7	N/A
17. I have enough time on an average shift to attend to the individual needs of each resident.	1	2	3	4	5	6	7	N/A
18. I find it easiest to follow a strict routine during my shift, rather than “go with the flow”.	1	2	3	4	5	6	7	N/A

Routinization and quality of life

	Strongly Disagree		No Opinion		Strongly Agree			
19. I often find myself “zoning out” or just “going through the motions” during a shift.	1	2	3	4	5	6	7	N/A
20. I sometimes end up doing things for a resident that they can actually do themselves.	1	2	3	4	5	6	7	N/A
21. It is common on my unit for the regular resident meal schedule to be readjusted according to resident suitability.	1	2	3	4	5	6	7	N/A
22. Sometimes when I experience a problem at work, I think of a better solution later on, rather than at the time the problem occurs.	1	2	3	4	5	6	7	N/A
23. I believe that my work here has an impact on the residents’ quality of life.	1	2	3	4	5	6	7	N/A

The following questions will help us to determine if we have sampled the opinions of a wide variety of staff who work in Long Term Care facilities. Please take the time to answer the following questions about yourself.

1. Please indicate your job title by checking off one of the following options:

- ☐ RN
- ☐ LPN
- ☐ Special Care Aide
- ☐ Nurse Aide
- ☐ Recreation Aide/ Activity Worker

2. Please list any work-related inservices you have attended or extra training you have completed in the past 2 years:

3. Please indicate how long you have worked in long term care : _____ yrs/_____
months

4. Sex

☐ Female

☐ Male

5. Age

_____Years Old

***THANK YOU FOR COMPLETING THIS QUESTIONNAIRE. YOUR PARTICIPATION
IS VITAL TO THIS PROJECT, AND IS GREATLY APPRECIATED.***

***Please place the completed questionnaire in the return envelope provided and return it to
the researcher via inter-facility mail.***

APPENDIX D

Resident Consent Form

Quality of Life in Long-Term Care Facilities

You are invited to participate in a research study entitled Quality of Life in Long Term Care Facilities. Please read this form carefully, and feel free to ask any questions you might have about the study.

Student-Researcher: Sheena Walls, MA Student, Department of Psychology, University of Saskatchewan, (306) 966-6672

Research Supervisor: Dr. Karen Lawson, Department of Psychology, (306)-966-2524

Regional Supervisor: Linda Crossman, Director of Integrated Services, Heartland Health Region, (306) 822-4111

Purpose and Procedure: The purpose of the research is to find out about the Quality of Life of Long Term Care residents like yourself. During the interview I will ask you some questions about your satisfaction with different aspects of your life here. For example, I will ask you to rate your satisfaction with the food here, and about how well your privacy and dignity are respected here. The interview takes about 40 minutes. Your responses will be used to find out what kinds of things the Long Term Care facilities in the Heartland Health Region need to improve upon, and what areas are satisfactory.

Risks: There are no known risks involved in your participation in this study.

Confidentiality: Your responses will be kept completely confidential and your particular responses will not be identifiable by your name or any other personal

information. None of the people who work here, or anyone else will know your responses to the questionnaire. Responses from all participants will be reported all together, in aggregated form. The questionnaires and consent forms will be stored securely and separately in a research laboratory at the University of Saskatchewan for a minimum of five years after the study is finished.

Right to withdraw: You may choose to end your participation in the study for any reason, at any time, and without penalty of any sort. If for any reason you decide that you don't want to answer some of the questions, or want to end the interview, you have the right to do so. The service and care you receive here will not be negatively affected in any way if you decide not to participate.

Questions: If you have any questions about the study, please feel free to ask me at any point. You are also free to contact myself or either of my supervisors at the numbers provided above if you have questions at a later time. If you would like to have a copy of the results of this study, you may also contact myself, the student researcher, at the numbers provided above. The proposed research was reviewed and approved on ethical grounds by the University of Saskatchewan Ethics Committee on May 17, 2004. Any questions about your rights as a participant may be addressed to the Behavioural Research Ethics Board through the Office of Research Services (966-2084). Out of town participants may call collect. The

results of this study will be used in a report to the Heartland Health Region, and in academic presentations and papers.

Consent to Participate: I have read and understand the description of the research study provided above. I have been provided with an opportunity to ask questions and my questions have been answered satisfactorily. I agree to participate in the study described above, and I understand that I may change my mind at any time. A copy of this consent form has been given to me for my records.

(Signature of Participant)

(Date)

(Signature of Researcher)
Quality of Life in Long Term Care Facilities

APPENDIX E

Staff Cover Letter

Dear Staff member,

I am a graduate student at the University of Saskatchewan, and am asking for your help in a study that I am conducting about Long Term Care (LTC). The purpose of the study is to find out more about how the quality of the lives of LTC residents and staff can be improved.

Each LTC facility has a slightly different routine. In some facilities, these routines are more strictly followed than at other facilities, sometimes due to workload, resident characteristics, and management preferences. There has been some research done about the routines followed in psychiatric hospitals, for example, yet very little is known about the nature of routines in LTC facilities.

As you may already know, I am helping the Heartland Health Region (HHR) conduct an evaluation of the Quality of Life among residents, by interviewing some of the residents in the Region. The study I am asking you to participate in is for my own thesis research, and is *separate* from the HHR's evaluation. I am interested, for the purpose of my own research, in your experience with routine as an RN, LPN, Nurse Aide, or Activity worker/recreation aide, working in LTC.

To help me collect this information, I am asking you to take an extra 15 minutes on your coffee break to complete this questionnaire. **The facility manager has given permission for you to take this extra break time in order to fill out the questionnaire.** After you have completed the questionnaire, please seal it in the envelope provided and return it to myself through inter-facility mail. You will notice that although the return address is within the HHR, it is addressed only to myself, and only I will have access to the returned questionnaires. Please do not discuss the questionnaire with your coworkers. Your time and participation are very important to this research project, and are so greatly appreciated.

Your participation in this survey is voluntary and your answers are meant to be anonymous. Please **DO NOT** write your name, or the name of the facility that you work at, on the questionnaire. Only myself, the researcher, and my academic supervisor will have access to the completed questionnaires, and no one will be able to identify you on the basis of your answers. All the responses to the questions will be combined so that the answers of any one individual cannot be determined. Return of the completed questionnaires implies permission to include your answers in the combined dataset, which will be analyzed and presented academic papers and in journal articles and conference presentations. All data will be stored securely in a locked office at the University of Saskatchewan for a minimum of five years.

This project was approved by the University of Saskatchewan Behavioural Ethics Research Board on May 17, 2004. If you have any questions or concerns about this survey or your rights as a participant in this study, please contact myself, Sheena Walls, Department of Psychology, University of Saskatchewan at (306) 966-6672 [e-mail: sheena.walls@usask.ca], my research Supervisor, Dr. Karen Lawson, Department of Psychology, University of Saskatchewan at (306) 966-2524, or Office of Research Services, (306) 966-4053. If you would like a summary of the study results, please contact me at the above phone number or email address.

Thank you for your help with this project.

Sincerely,

Sheena Walls
M.A. Candidate
University of Saskatchewan